

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

TEXTRON INNOVATIONS INC.*

* April 20, 2023

VS.

*

* CIVIL ACTION NO. 6:21-CV-740

SZ DJI TECHNOLOGY CO., *
LTD. ET AL *

BEFORE THE HONORABLE ALAN D ALBRIGHT
JURY TRIAL PROCEEDINGS
Volume 4 of 5

APPEARANCES:

For the Plaintiff: Kurt Pankratz, Esq.
Morgan G. Mayne, Esq.
Harrison Rich, Esq.
Emily M. Deer, Esq.
Baker Botts
2001 Ross Ave., Suite 900
Dallas, TX 75206

Kevin J. Meek, Esq.
Mark A. Speegle, Esq.
Lance Joseph Goodman, Esq.
Boyang Zhang, Esq.
Baker Botts, LLP
98 San Jacinto Blvd., Suite 1500
Austin, TX 78701

Mark Siegmund, Esq.
Cherry Johnson Siegmund James, PLLC
The Roosevelt Tower
400 Austin Avenue, 9th Floor
Waco, Texas 76701

For the Defendant: J. Michael Jakes, Esq.
Qingyu Yin, Esq.
Sydney Kestle, Esq.
Finnegan Henderson Farabow Garrett
& Dunner LLP
901 New York Ave. Nw
Washington, DC 20001

1 Benjamin R. Schlesinger, Esq.
2 Robert High, Esq.
3 Finnegan Henderson Farabow Garrett
4 & Dunner LLP
5 271 17th St NW, Suite 1400
6 Atlanta, GA 30363

7 Jacob Schroeder, Esq.
8 Finnegan Henderson Farabow Garrett
9 & Dunner LLP
10 Stanford Research Park
11 3300 Hillview Avenue, 2nd Floor
12 Palo Alto, CA 94304

13 John P. Palmer, Esq.
14 Jacqueline Altman, Esq.
15 Naman Howell Smith & Lee
16 P.O. Box 1470
17 Waco, TX 76703-1470

18 Court Reporter: Kristie M. Davis, CRR, RMR
19 PO Box 20994
20 Waco, Texas 76702-0994
21 (254) 340-6114

22 Proceedings recorded by mechanical stenography,
23 transcript produced by computer-aided transcription.

01:29

01:29

08:39

18

19

20

21

22

23

24

25

08:39 1 (Hearing begins.)

08:39 2 THE BAILIFF: All rise.

08:39 3 THE COURT: Thank you. You may be

08:39 4 seated.

08:39 5 Good morning, everyone.

08:40 6 Mr. Siegmund?

08:40 7 MR. SIEGMUND: Good morning, Your Honor.

08:40 8 Mark Siegmund on behalf of the plaintiff.

08:40 9 I think just a couple of housekeeping

08:40 10 things, Your Honor. Both sides filed objections to

08:40 11 Judge Gilliland's report and recommendations on various

08:40 12 issues, and I'm --

08:40 13 THE COURT: I'll overrule those for the

08:40 14 record.

08:40 15 MR. SIEGMUND: Okay. Great. That was my

08:40 16 question. We have not filed a response to those. I'm

08:40 17 assuming you don't need one since --

08:40 18 THE COURT: I don't need one.

08:40 19 MR. SIEGMUND: Okay. Great.

08:40 20 And then the other issue is, I guess,

08:40 21 timing and how you want Rule 50 motions.

08:40 22 Are those going to be oral? Do you want

08:40 23 a written response? What is kind of the Court's

08:40 24 preference?

08:40 25 THE COURT: You know, I always try to

08:40 1 defer to you all about what you think protects you the
08:40 2 most since I knew so little about how to do that
08:40 3 myself.

08:40 4 But what typically we have done is -- by
08:40 5 agreement of parties, is have them done orally. In
08:40 6 this case, y'all have agreed to do them at the end of
08:40 7 the evidence, and we'll do them then.

08:40 8 And then, generally speaking, the parties
08:40 9 have submitted written briefs as well, but I rule on
08:41 10 the oral motions. And if you all are okay with that,
08:41 11 that's typically what I've done. And so that's -- that
08:41 12 would be what I would propose.

08:41 13 MR. SIEGMUND: Okay.

08:41 14 THE COURT: If the parties are okay with
08:41 15 that.

08:41 16 MR. SCHROEDER: Yeah, Your Honor. And
08:41 17 just for -- good morning, Your Honor. Jacob Schroeder
08:41 18 from Finnegan on behalf of defendants.

08:41 19 Is Your Honor's preference that we would
08:41 20 do the oral at the close of evidence before the charge?

08:41 21 THE COURT: Oh, yes.

08:41 22 MR. SCHROEDER: Okay. Yeah. And then
08:41 23 could we --

08:41 24 THE COURT: But let me say here not to be
08:41 25 too lawyerly, but again, I had thought you were going

08:41 1 to do it at the end of your evidence as opposed to
08:41 2 the -- because they're going to have a rebuttal case.

08:41 3 Again, I'm agnostic. I'll do it --
08:41 4 whatever you all want to do is fine with me, but the
08:41 5 way I had understood it, the motions were going to be
08:41 6 made at the end of your case.

08:41 7 If you want to do it, then we can. And
08:41 8 then we can do them again after we hear their rebuttal
08:42 9 expert. We can wait until we hear the rebuttal expert.
08:42 10 I don't care.

08:42 11 MR. SCHROEDER: Propose we wait until all
08:42 12 the evidence is in and then just get it out before the
08:42 13 charge. And then we would like to file a written
08:42 14 Rule 50 --

08:42 15 THE COURT: You're more than welcome to.

08:42 16 MR. SCHROEDER: -- get that on file
08:42 17 tomorrow morning before closing.

08:42 18 THE COURT: Sure.

08:42 19 MR. SIEGMUND: And then on that,
08:42 20 Your Honor, that's totally -- we don't care, but do
08:42 21 you -- when is our deadline to respond to the written
08:42 22 Rule 50 motion?

08:42 23 THE COURT: Given that they're going to
08:42 24 be overruled before the -- well, let me say, the only
08:42 25 one I will take up -- I will take up -- let me say it

08:42 1 to protect my record. But the one I will most
08:42 2 seriously consider will be, I anticipate, a motion on
08:42 3 willfulness from the defendant.

08:42 4 And I will -- I will want to hear -- and
08:42 5 maybe at the end of today, after we're done with the
08:42 6 evidence, we can take that one up. Because I really
08:42 7 would like -- I think that in this case deserves --
08:42 8 it's been hard fought. And also I've been listening to
08:43 9 evidence about what the defendant did, your client did
08:43 10 and all that.

08:43 11 And so we ought -- I think we ought to
08:43 12 spend whatever time that you, the defendant, think you
08:43 13 want to have me hear arguments, and we can do that
08:43 14 today --

08:43 15 MR. SCHROEDER: Okay.

08:43 16 THE COURT: -- when we finish up with
08:43 17 their expert on invalidity.

08:43 18 The others I think -- I can't think of a
08:43 19 motion either one of you all would have that I would
08:43 20 consider granting as a directed verdict other than that
08:43 21 one.

08:43 22 And I'm not forecasting I am going to
08:43 23 grant it. I'm just saying it's the one that we take
08:43 24 up -- I routinely take up and decide whether or not to
08:43 25 submit to the jury.

08:43 1 And then I'm also -- once I've heard
08:43 2 everything, I may or may not prognosticate -- sometimes
08:43 3 I have, sometimes I haven't -- the likelihood, if even
08:43 4 there were a willfulness finding, whether or not I
08:43 5 would, you know, find it an exceptional case. And I
08:43 6 might let you all know that at the end of the arguments
08:43 7 today too.

08:44 8 But with regard to the others, that's the
08:44 9 only one I think that there is a serious chance of me
08:44 10 granting --

08:44 11 MR. SCHROEDER: Okay.

08:44 12 THE COURT: -- if that helps you all.

08:44 13 MR. SCHROEDER: Thank you, Your Honor.

08:44 14 MR. SIEGMUND: It does. Thank you.

08:44 15 MR. SCHROEDER: There was one other item.
08:44 16 The parties have agreed as far as the physical
08:44 17 exhibits, the drones that we have entered into
08:44 18 evidence, that that can go back to the jury room so
08:44 19 long as the battery --

08:44 20 THE COURT: They can't go.

08:44 21 MR. SCHROEDER: -- is removed, is what
08:44 22 we -- would that be okay?

08:44 23 THE COURT: We can't do that.

08:44 24 MR. SCHROEDER: Okay.

08:44 25 THE COURT: Yeah. I mean, that's -- and

08:44 1 so you can take photos of them and send the photos
08:44 2 back, but we can't have the physical ones going back.

08:44 3 MR. SCHROEDER: Even with the batteries
08:44 4 removed?

5 THE COURT: It has nothing to do with the
08:44 6 batteries -- I'm not an airport, and so it wouldn't
08:44 7 matter what they were. They can't go back.

08:44 8 MR. SCHROEDER: Thank you, Your Honor.

08:44 9 THE COURT: Mr. Palmer?

08:44 10 MR. PALMER: I was just going to ask a
08:44 11 question.

08:44 12 Could we publish that to the jury so they
08:44 13 could at least hold it during the -- outside, out here
08:44 14 and --

08:44 15 THE COURT: I'm not sure what you mean --
08:44 16 I'm not sure the timing of the publishing.

08:45 17 I'm sure I'll let you do it, but I'm
08:45 18 not sure what you're asking for.

08:45 19 MR. PALMER: Yes, Your Honor. Just
08:45 20 because we're talking about that exhibit not being able
08:45 21 to physically go back there where they could actually
08:45 22 hold it, and they've never held it, we would like to
08:45 23 publish that at some time today.

08:45 24 THE COURT: You'd like to let
08:45 25 them physically --

08:45 1 MR. PALMER: Yeah. Pass it to each other
08:45 2 and see what it feels like and look at it.

08:45 3 THE COURT: I don't --

08:45 4 MR. SIEGMUND: I guess our question would
08:45 5 be why and the timing, Your Honor. I mean, if we
08:45 6 instruct them and they go back to deliberate, I mean,
08:45 7 are they going to sit out here and pass it around?

08:45 8 THE COURT: No. I think they're talking
08:45 9 about during their case. They're not talking about --
08:45 10 I think they are talking about while they have a
08:45 11 witness on the stand, most likely, I would assume,
08:45 12 this -- the doctor who's testifying, they'd like to
08:45 13 publish -- they'd like to hand it out to the jury.

08:45 14 MR. SIEGMUND: I think we probably just
08:45 15 object on relevance and it's -- and stand on that,
08:45 16 Your Honor. I don't know why that would matter, but...

08:45 17 THE COURT: I don't have a -- you can
08:45 18 have them. You can distribute it.

08:45 19 Anything else?

08:46 20 Yes, sir.

08:46 21 MR. HIGH: Thank you, Your Honor. This
08:46 22 is Bob High for the defendants.

08:46 23 We just have one objection on one slide.

08:46 24 THE COURT: Okay. Okay. The slide is
08:46 25 Slide 6 of their rebuttal --

08:46 1 MR. HIGH: Dr. Michalson's rebuttal
08:46 2 expert, and we think this is a misstatement of the law
08:46 3 and not really the place of the technical expert to be
08:46 4 telling the jury what the legal standard is for
08:46 5 obviousness.

08:46 6 And specifically, we don't think there's
08:46 7 any requirement that an element be missing from a
08:46 8 reference. We think you can have obviousness if all of
08:46 9 the elements are --

08:46 10 THE COURT: You're right. I mean, you
08:46 11 can have a -- I mean, this is -- this is -- the first
08:46 12 sentence is not right. The first sentence is not the
08:46 13 law, and it's frightening to me that I know that, but
08:46 14 only because I've had single-reference obviousness
08:46 15 arguments that have been made.

08:46 16 So if -- if -- on the other hand, I think
08:47 17 all that the plaintiff is trying to say is, you know,
08:47 18 that in this situation -- I'm guessing there's a
08:47 19 combination here. I'm guessing y'all are using a
08:47 20 combination and they're attacking that.

08:47 21 MR. HIGH: So we're relying on
08:47 22 single-reference obviousness.

08:47 23 THE COURT: You are?

24 MR. HIGH: Yes.

08:47 25 THE COURT: Well, then this can't come

08:47 1 in.

08:47 2 MR. HIGH: Okay. Thank you.

08:47 3 THE COURT: Okay. Anything else?

08:47 4 MR. SIEGMUND: No, Your Honor.

08:47 5 THE COURT: Okay. We'll -- as soon as --
08:47 6 is the jury all here?

08:47 7 If you all will wait five minutes, we'll
08:47 8 bring the jury in.

08:47 9 THE BAILIFF: All rise.

08:47 10 (Recess taken.)

08:55 11 THE BAILIFF: All rise.

08:55 12 THE COURT: Please remain standing for
08:55 13 the jury.

08:55 14 (Jury entered the courtroom.)

08:55 15 THE COURT: Thank you. You may be
08:55 16 seated.

08:55 17 Counsel?

18 MR. SCHLESINGER: Thank you.

08:55 19 Ben Schlesinger again from Finnegan on behalf of DJI.

08:55 20 DIRECT EXAMINATION CONTINUED

08:55 21 BY MR. SCHLESINGER:

08:55 22 Q. Good morning.

08:55 23 A. Good morning.

08:55 24 Q. Yesterday we talked about noninfringement.

08:55 25 I'd like to switch gears a little bit and move over to

08:55 1 whether the patents are valid.

08:55 2 First off, let's start with the '909 patent.

08:56 3 Are you familiar with the concept of a person
08:56 4 of ordinary skill in the art?

08:56 5 A. Yes. I am.

08:56 6 Q. Do you have an opinion on who would be a
08:56 7 person of ordinary skill in the art with respect to the
08:56 8 '909 patent?

08:56 9 A. I do. I've prepared a slide on that that you
08:56 10 can all see now.

08:56 11 Q. And what is that opinion?

08:56 12 A. That opinion as described here is: It's
08:56 13 somebody who has a degree in a field related to what
08:56 14 this patent is talking about, such as mechanical
08:56 15 engineering, robotics, electrical engineering, and, of
08:56 16 course, somebody knowledgeable about flying, and as
08:56 17 well somebody who has some experience developing or
08:56 18 evaluating or designing these systems.

08:56 19 And of course, if you have lots of experience
08:56 20 on the field, that's just as important as education.

08:56 21 Q. Thank you.

08:56 22 Now, let's turn to the asserted claims.

08:56 23 Can you remind us which claims are asserted in
08:56 24 this case?

08:56 25 A. Sure. The '909 patent has four claims

08:57 1 specifically that were asserted. The two big ones you
08:57 2 see on the left, the independent claims, and then the
08:57 3 two smaller dependent claims. So 1, 7, 10 and 11.

08:57 4 Q. Are these all of the claims in the '909
08:57 5 patent?

08:57 6 A. No. The '909 patent has many, many claims.
08:57 7 These are the only four that are asserted in this case
08:57 8 against DJI.

08:57 9 Q. So if the jury agrees with you that the
08:57 10 asserted claims are invalid, does that mean all of the
08:57 11 claims of the '909 patent are invalid?

08:57 12 A. No.

08:57 13 Q. What does it mean?

08:57 14 A. Just that these four are invalid.

08:57 15 Q. Would you please turn to Tab DX-345, which is
08:57 16 Defendants' Exhibit 345?

08:57 17 A. I'm going there. I'm there.

08:57 18 Q. What is this?

08:57 19 A. This is a patent issued by the United States
08:57 20 Patent Office. It's -- we call it the Frink patent.

08:58 21 Q. And how does the Frink patent relate to the --
08:58 22 your opinions with respect to the validity of the '909
08:58 23 claims?

08:58 24 A. When I looked at what's been done before the
08:58 25 '909 patent, what had other peoples invented

08:58 1 previously, I looked at this patent because it's done
08:58 2 previously, and so it informs my understanding of
08:58 3 invalidity.

08:58 4 Q. What is the basis of your opinion on -- with
08:58 5 respect to whether the Claims 1, 7, 10 and 11 of the
08:58 6 '909 patent are valid or invalid?

08:58 7 A. I believe that Frink anticipates and renders
08:58 8 obvious those claims.

08:58 9 MR. SCHLESINGER: Your Honor, DJI moves
08:58 10 to admit DX-345.

08:58 11 MR. RICH: No objection.

08:58 12 THE COURT: It'll be admitted.

08:58 13 MR. SCHLESINGER: Could we please pull up
08:58 14 DX-345, and let's put it on the left side, and pull up
08:58 15 the '909 patent and put it on the right side.

08:59 16 And could you blow up the filing dates of
08:59 17 each?

08:59 18 BY MR. SCHLESINGER:

08:59 19 Q. When was the Frink patent -- Mr. Frink's
08:59 20 patent filed?

08:59 21 A. On June of 2002.

08:59 22 Q. When was the '909 patent filed?

08:59 23 A. In March of 2004, almost two years later.

08:59 24 Q. Does the Frink patent qualify as prior art to
08:59 25 the '909 patent?

08:59 1 A. Yes.

08:59 2 Q. Why is that?

08:59 3 A. Because it was filed earlier and was available
09:00 4 before.

09:00 5 Q. And you mentioned that the Frink patent was
09:00 6 obviously a patent.

09:00 7 What's the patent number for Mr. Frink's
09:00 8 patent?

09:00 9 A. It's listed up here. It's 6,868,314.

09:00 10 Q. And what's the patent number for what we've
09:00 11 been calling the '909 patent?

09:00 12 A. That's right here. 8,014,909.

09:00 13 MR. SCHLESINGER: Can we go back to the
09:00 14 slides, please?

09:00 15 BY MR. SCHLESINGER:

09:00 16 Q. Can you remind us what the '909 patent is
09:00 17 about?

09:00 18 A. Sure. We talked about it kind of two patents
09:00 19 ago, but it was all about this idea that you have a
09:00 20 ship bucking in the ocean, for example, and you're
09:00 21 trying to approach it. So what are all the information
09:00 22 you need to get, like position and movement, so you can
09:00 23 approach it to, for instance, land on that ship.

09:01 24 Q. When the Patent Office evaluated the '909
09:01 25 patent, it did not have knowledge of the Frink patent;

09:01 1 is that right?

09:01 2 A. That's correct.

09:01 3 Q. How do you know that?

09:01 4 A. Well, the Patent Office, on the front of the
09:01 5 patent here, they list all the references that they
09:01 6 knew about.

09:01 7 MR. SCHLESINGER: And why don't we bring
09:01 8 up the '909 patent directly so it's a little bigger.

09:01 9 A. Yeah. It's small.

09:01 10 BY MR. SCHLESINGER:

09:01 11 Q. And what are you circling?

09:01 12 A. I'm circling the references cited. And you
09:01 13 can go ahead. Go ahead.

09:01 14 MR. SCHLESINGER: Yeah. If we can just
09:01 15 zoom in right above the figure so we can see that.

09:01 16 There we go.

09:01 17 BY MR. SCHLESINGER:

09:01 18 Q. And do you see Mr. Frink's patents listed in
09:02 19 those references cited?

09:02 20 A. No.

09:02 21 Q. What does that mean?

09:02 22 A. That means the examiner wasn't aware of this
09:02 23 patent when they were considering whether or not the
09:02 24 '909 patent should get a patent.

09:02 25 Q. What about the fact that the -- Mr. Frink's

09:02 1 patent was at the Patent Office at the time?

09:02 2 Was the examiner aware of it?

09:02 3 A. No.

09:02 4 Q. And again, how do you know that?

09:02 5 A. Because if the examiner had considered Frink,
09:02 6 he or she would have listed it here.

09:02 7 MR. SCHLESINGER: And let's switch back
09:02 8 to the slides and let's...

9 BY MR. SCHLESINGER:

09:02 10 Q. Can you describe what Frink discloses?

09:02 11 A. Sure. Frink is all about the idea that you
09:02 12 have an unmanned aircraft, in other words, some kind of
09:02 13 device that's flying in the air. You can see it here
09:02 14 kind of pictured in this figure.

09:03 15 And the idea is you have, for instance, in the
09:03 16 water, perhaps, a boat and you're trying to be able to
09:03 17 approach its position to do things like circle it or
09:03 18 fly alongside it. And same thing for a ground
09:03 19 transmitter to be able to fly to it.

09:03 20 The idea was, for instance, you might be
09:03 21 measuring watershed, like stream levels, and you want
09:03 22 to be able to send an autonomous aircraft out to circle
09:03 23 it and get the data or you might even be doing
09:03 24 fish-spotting, and you want to be able to go out and
09:03 25 find the fish for the fishermen.

09:03 1 Q. You mentioned flying patterns. What kind of
09:03 2 patterns does Frink disclose?

09:03 3 A. There's two examples he gives that I've
09:03 4 prepared slides on. If you go to the next slide, I
09:03 5 think I have the first example.

09:03 6 This, he's kind of -- you can see in the
09:03 7 description here I've highlighted in yellow, the idea
09:03 8 is -- one thing that he talks about is matching the
09:03 9 marine vessel's speed. So that's velocity matching,
09:03 10 same relative velocity, so you can follow the boat as
09:04 11 it's going through the waves.

09:04 12 Q. What do you mean by "follow the boat"?

09:04 13 A. I mean being able to match its velocity so you
09:04 14 can go right alongside it.

09:04 15 Q. Does Frink disclose any other patents?

09:04 16 A. He does. If you go to the next slide, please.

09:04 17 And there's a little quote here for you. It
09:04 18 can be programmed to fly a pattern, it says here. And
09:04 19 in particular, it says an oval pattern.

09:04 20 So now you have a boat moving through the
09:04 21 water, and Frink describes and discloses that you could
09:04 22 have this aircraft circling the boat in an oval shape
09:04 23 as it's going through the water, which means you have
09:04 24 to both match its speed but also have this interesting
09:04 25 relative velocity to go faster and slower than it so

09:04 1 you can move along with it and go in an oval pattern
09:04 2 around it at the same time.

09:04 3 Q. So Frink discloses both following another
09:04 4 object, so an aircraft following a boat, for example,
09:04 5 or an aircraft circling the boat?

09:04 6 MR. RICH: Objection, leading.

09:04 7 THE COURT: Overruled.

09:05 8 A. That's correct.

09:05 9 BY MR. SCHLESINGER:

09:05 10 Q. Let's turn to Claim 1.

09:05 11 What is your opinion with respect to whether
09:05 12 Frink anticipates or renders obvious Claim 1 of the
09:05 13 '909 patent?

09:05 14 A. My opinion is that Frink anticipates and
09:05 15 renders obvious Claim 1.

09:05 16 Q. Why is that?

09:05 17 A. Well, for understanding invalidity, I go
09:05 18 through every line of Claim 1 and consider does Frink,
09:05 19 does this invention that was a couple years earlier,
09:05 20 disclose every line, every word?

09:05 21 And as I did this in Claim 1, I went through
09:05 22 it one step at a time. I found that every part of
09:05 23 Claim 1 is indeed disclosed by Frink.

09:05 24 Q. Why don't we start with the first element?

09:05 25 A. Sure.

09:05 1 Q. Where does Frink disclose the first
09:05 2 limitation?

09:05 3 A. So the very beginning of Claim 1 is a system
09:05 4 for controlling the flight of an aircraft. That line
09:05 5 that we call the preamble.

09:05 6 And even in the very beginning of the Frink
09:06 7 patent, it already says this invention is about this
09:06 8 aerial vehicle, that's an aircraft, flying, and it's
09:06 9 about controlling it.

09:06 10 Actually, I'm underlining the wrong thing.

09:06 11 It's about flying this aircraft and being able
09:06 12 to fly it in a specific pattern. So you got to control
09:06 13 it to be able to fly it in a pattern like that.

09:06 14 Q. And where in Frink is that disclosed?

09:06 15 A. That's disclosed in Frink here in the summary
09:06 16 of the invention right in the description.

09:06 17 Q. And is that Column 2, Lines 15 to 17?

09:06 18 A. Yes. That's shown right here.

09:06 19 Q. And what does -- what about the next element,
09:06 20 the sensor element?

09:06 21 A. You'll remember this element from yesterday.
09:06 22 This was the idea that the aircraft needs to be able to
09:06 23 have a sense of its own position.

09:06 24 And in the claim language, they said two
09:06 25 things about that. The aircraft has to have the

09:06 1 ability to sense its position, has to have a sensor
09:07 2 system for that, and inertial motion.

09:07 3 Remember, we talked about the idea that it's
09:07 4 not just position but also how it's moving.

09:07 5 And on the left side, I'm showing Frink at
09:07 6 Column 4 talking about the idea that the vehicle --
09:07 7 that's the aerial vehicle, that's the aircraft -- can
09:07 8 have the following.

09:07 9 It says right here a "global positioning
09:07 10 receiver," and it even names a specific one, and of
09:07 11 course, that's going to give you position.

09:07 12 And then in that same paragraph, at the bottom
09:07 13 here, it has this phrase: It can be backed up with an
09:07 14 inertial guidance system.

09:07 15 And it actually lists out accelerometers and
09:07 16 gyroscopes, which are part of the systems I was telling
09:07 17 you about yesterday. So that is actually the inertial
09:07 18 movement of the aircraft.

09:07 19 Q. And when you say systems telling you about
09:07 20 yesterday, you're talking about the inertial movement
09:07 21 sensors?

09:07 22 A. Yes.

09:07 23 Q. What about the rest of the sensor limitation
09:07 24 in the '909 patent?

09:07 25 A. The second half of this paragraph is saying

09:07 1 "the sensor system adapted to communicate." So it's
09:08 2 not good enough for the aircraft to collect the data
09:08 3 with the sensor system. It needs to be in a position
09:08 4 of being able to use that information. So it has to
09:08 5 communicate it to the control system somehow.

09:08 6 And in Frink here, in Column 7, Line 44, Frink
09:08 7 says: The flight computer is in communication with the
09:08 8 flight dynamic sensors. The flight dynamic sensors are
09:08 9 the sensors that measure its position in motion.

09:08 10 So now we know that Frink is disclosing this
09:08 11 second half here as well.

09:08 12 Q. So does Frink disclose the entire sensor
09:08 13 system limitation in Claim 1 of the '909 patent?

09:08 14 A. Yes. Frink does so.

09:08 15 Q. What about the next limitation?

09:08 16 A. The next one, you'll remember yesterday too,
09:08 17 it was about the idea that the aircraft has to receive
09:08 18 the position of the boat or the reference vehicle and
09:09 19 the movement of the boat or the reference vehicle.

09:09 20 So we can look in Frink to see, does Frink
09:09 21 disclose this idea that the boat's information, the
09:09 22 boat's position, the boat's motion, is being received
09:09 23 by the aircraft?

09:09 24 And here, on the left, I'm showing Column 4 of
09:09 25 Frink, again, Line 63, all the way through to Column 5,

09:09 1 a few things about that.

09:09 2 First of all, we're going to just start with
09:09 3 the receiver. Does the aircraft even have the ability
09:09 4 to receive things?

09:09 5 And here, we're seeing wireless communication
09:09 6 system for communicating with surface-based data
09:09 7 collectors. Surface-based data collectors is, for
09:09 8 example, the boat or the antenna on the ground.

09:09 9 And then it says this is useful for retrieving
09:09 10 data. So we know that we've fulfilled this first part
09:09 11 here.

09:09 12 Q. What about the rest of the receiver limitation
09:09 13 in the '909, Claim 1?

09:09 14 A. Let's go to the next slide, please.

09:09 15 So the rest of it, now that we know we have a
09:09 16 receiver, that receiver has to receive that position
09:10 17 information and movement information that we talked
09:10 18 about.

09:10 19 And in Column 8 here in Frink, there's this
09:10 20 paragraph. And what this is saying is that the flight
09:10 21 navigation computer on the aircraft uses the surface
09:10 22 object's navigation data. And it actually spells it
09:10 23 out: Position, heading and speed.

09:10 24 Position, of course, that is right away
09:10 25 connected to position here. And heading and speed,

09:10 1 that's movement information. So that's connected right
09:10 2 over here to movement.

09:10 3 So both of those are being called out and
09:10 4 disclosed by Frink.

09:10 5 Q. And you mentioned "this paragraph" of
09:10 6 Column 8. Is that Lines 31 to 44?

09:10 7 A. Yes.

09:10 8 Q. What about the next limitation, "the commanded
09:10 9 data"? Does Frink disclose that?

09:10 10 A. Yes.

09:10 11 So this limitation, you'll remember, was about
09:10 12 the idea that there has to be something representing
09:10 13 selected velocity of the aircraft relative to the
09:11 14 reference vehicle.

09:11 15 So if it's a boat, some commanded data is
09:11 16 saying what's the relative velocity we want to have
09:11 17 between these two?

09:11 18 And in Frink, here in Column 9, Lines 1 to 8,
09:11 19 Frink says that the aircraft can be programmed to fly
09:11 20 in the pattern. And he even uses the word "commanded"
09:11 21 here. It can be commanded, for example, to fly
09:11 22 directly over or it can be programmed to fly in an oval
09:11 23 pattern.

09:11 24 Both of those cases, if you're going to tell
09:11 25 the aircraft, for example, to fly in an oval pattern,

09:11 1 you need to command its relative velocity, you know,
09:11 2 saying it should go a little bit faster on this side, a
09:11 3 little bit slower on this side and keep going round and
09:11 4 round the boat.

09:11 5 Q. And yesterday, you mentioned there were
09:11 6 multiple ways for -- I believe it was referred to as
09:11 7 station-keeping.

09:11 8 A. Yes.

09:11 9 Q. Which of those ways does Frink disclose?

09:11 10 A. He actually says very specifically matching
09:11 11 the marine vessel's speed here when he talks about
09:11 12 commanding it to fly directly over. So that's relative
09:12 13 velocity too, because you're saying, I want you to
09:12 14 match your velocities.

09:12 15 Q. And just for the -- remind us what the other
09:12 16 way of doing?

09:12 17 A. The other way of doing it was the wooden
09:12 18 yardstick, right? You can just take your position and
09:12 19 lock your position together.

09:12 20 Q. And Frink discloses the relative velocity?

09:12 21 A. Correct.

09:12 22 Q. What about the control system limitation?
09:12 23 Does Frink disclose that?

09:12 24 A. Yes.

09:12 25 Q. How do you know that?

09:12 1 A. Well, we can kind of go through it a step at a
09:12 2 time also. And this is a longer one, but that's it --
09:12 3 it is what it is, I guess.

09:12 4 Here we have -- first of all, we have to have
09:12 5 a control system on the aircraft, and Frink says that
09:12 6 the aircraft can have a flight control computer. So we
09:12 7 know we have a control system.

09:12 8 Q. And where does Frink say that?

09:12 9 A. In Column 5, Lines 15 to 24.

09:12 10 Q. And what about the next part of the control
09:13 11 system limitation?

09:13 12 MR. RICH: Your Honor, may we approach?

09:13 13 THE COURT: Sure.

09:13 14 (Bench conference.)

09:13 15 MR. RICH: Your Honor, we don't believe
09:13 16 this is in his report. He's about to tie -- he's going
09:13 17 to try to tie matching into calculating the velocity.
09:13 18 But in his report all he ties is the pattern, that it's
09:13 19 programmed to fly in a pattern.

09:13 20 MR. SCHLESINGER: DJI's objections to
09:13 21 this were due three days ago. And actually, counsel
22 surprised me with an objection yesterday asking if
23 there was anything else --

24 (Simultaneous speakers.)

25 THE REPORTER: I can't hear you when your

1 papers are over the microphone.

09:13 2 THE COURT: I'm not worried about this
09:13 3 slide. What I need to know is whether or not something
09:13 4 is in -- just show me where -- hold on a second.

09:13 5 Show me where what you're about to have
09:14 6 the witness say is in his report.

09:14 7 MR. RICH: So you're addressing
09:14 8 calculating limitation, and all he does is say it flies
09:14 9 in a pattern to calculate.

09:14 10 It never says matching to calculate.

09:14 11 MR. SCHLESINGER: We're not going to --
09:14 12 that's not the intent.

09:14 13 MR. RICH: As long as he doesn't say --
09:14 14 (Simultaneous speakers.)

09:14 15 MR. RICH: I mean, if he says it, I have
09:14 16 to object to that.

09:14 17 THE COURT: If he says it, object, and
18 I'll strike it.

19 MR. RICH: Thanks, Your Honor.

09:14 20 THE COURT: And again, let me make clear.
09:14 21 My -- I'm not -- my concern is not with what's in this
09:14 22 slide. It's with -- if you have something that's
09:14 23 supported in the report, I'll let him talk about it.

09:14 24 MR. RICH: Thank you, Your Honor.

09:14 25 (Bench conference concludes.)

1 BY MR. SCHLESINGER:

09:15 2 Q. Now, for the calculating limitation, is this
09:15 3 done by the oval pattern disclosed in Frink?

09:15 4 A. Yes.

09:15 5 Q. Can you explain that, please?

09:15 6 A. Yes. The control system on the aircraft has
09:15 7 to figure out how to fly in the real world kind of with
09:15 8 all the wind and all the vagaries, what's actually
09:15 9 happening, to be able to maintain that oval racetrack
09:15 10 pattern as it's going around the boat as it's moving.
09:15 11 So it's going to be calculating how to do that.

09:15 12 Q. And what about the next part of the control
09:15 13 system limitation?

09:15 14 A. The next part -- can we go back one? I'm
09:15 15 sorry. Thank you.

09:15 16 The next part is the idea that you need to be
09:15 17 using the sensed data and the reference data. Frink
09:15 18 says that we're using the surface object's navigation
09:15 19 data and heading information. And we know the
09:16 20 navigation computer also has its own position
09:16 21 information.

09:16 22 Q. And is that at Column 8, Lines 36 to 42?

09:16 23 A. Yes.

09:16 24 Q. What about the rest of the control systems
09:16 25 limitation?

09:16 1 A. The rest is kind of saying: How are you doing
09:16 2 it?

09:16 3 And so it says that, in the claim, you need to
09:16 4 control the flight-control devices. That means the
09:16 5 flaps on the airplane, the ailerons, the elevator, the
09:16 6 rudder, whatever makes the airplane be able to change
09:16 7 direction and speed.

09:16 8 And in Frink, he says right here in Column 5,
09:16 9 15 to 24, that the system is going to actuate the
09:16 10 flight control surfaces which is matching that and
09:16 11 disclosing that.

09:16 12 Q. And what about the rest of -- the next part of
09:16 13 the control systems limitation?

09:16 14 A. Finally, the limitation's saying, what are you
09:16 15 doing? And it's saying you're maintaining and
09:16 16 achieving a selected velocity relative to the reference
09:17 17 vehicle.

09:17 18 And of course, if you have an aircraft that's
09:17 19 going around a boat, it's maintaining that relative
09:17 20 velocity around that reference vehicle.

09:17 21 Q. And where is that shown in Frink?

09:17 22 A. It's shown both in the text that I'm showing
09:17 23 here from Column 9:1-8 and in the figure that we're
09:17 24 animating.

09:17 25 Q. And what about the last limitation?

09:17 1 A. Let's go ahead and go to the next slide.

09:17 2 Thank you.

09:17 3 The last limitation you'll remember is saying
09:17 4 that the commanded data is programmed into the control
09:17 5 system prior to flight.

09:17 6 And I'm showing here some writing from Frink
09:17 7 in Column 3:18-30, and he actually says it both ways.
09:17 8 He can say that it can be preprogrammed, which means
09:17 9 prior to flight in this case, and he can say,
09:18 10 alternatively here, it can be provided while the
09:18 11 unmanned aerial vehicle is in flight. So he gives both
09:18 12 indications.

09:18 13 And then below, I've just pointed out that he
09:18 14 talks about the idea that you can program these
09:18 15 commands. So you're talking about the things that
09:18 16 we're programming or preprogramming.

09:18 17 Q. So what is your opinion with respect to
09:18 18 whether Frink anticipates or renders obvious Claim 1 of
09:18 19 the '909 patent?

09:18 20 A. I believe Frink anticipates and renders
09:18 21 obvious Claim 1.

09:18 22 Q. So Frink shows that the '909 patent did not
09:18 23 invent what's claimed in Claim 1 of the '909 patent?

09:18 24 MR. RICH: Objection, leading.

09:18 25 THE COURT: Overruled.

09:18 1 A. That is my opinion. I believe Frink shows
09:18 2 that the Claim 1 -- everything in Claim 1 was already
09:19 3 invented.

09:19 4 BY MR. SCHLESINGER:

09:19 5 Q. Let's turn to the next asserted claim,
09:19 6 Claim 7. I believe yesterday we heard that this is
09:19 7 very similar to Claim 1; is that right?

09:19 8 A. Yes.

09:19 9 Q. What is your opinion with respect to whether
09:19 10 Frink anticipates or renders obvious Claim 7?

09:19 11 A. I believe Frink also anticipates and renders
09:19 12 obvious Claim 7.

09:19 13 Q. And maybe we can move a little faster through
09:19 14 this one since it's similar. But what's the basis of
09:19 15 your opinion?

09:19 16 A. It'll be absolutely faster, yes.

09:19 17 Again, I went through the whole claim line by
09:19 18 line because every word matters, and I'll point out to
09:19 19 you where it differs.

09:19 20 So this one, there's no difference. It's a
09:19 21 system for controlling an aircraft just like in
09:19 22 Claim 1. And the same evidence applies Column 2,
09:19 23 Lines 15 to 17.

09:19 24 Q. What about the sensor limitation?

09:19 25 A. The difference in sensor limitation I've

09:19 1 underlined here in red. This claim is just like the
09:19 2 other claim except it says position of the aircraft
09:19 3 relative to the earth.

09:20 4 And so if we look at Frink here on the left,
09:20 5 he actually disclosed a global positioning system. And
09:20 6 the way GPS like on your phone works is actually gives
09:20 7 you your position relative to the earth. And yes, if
09:20 8 you were on the moon or Mars, it would not work at all.
09:20 9 It's just relative to the earth.

09:20 10 Q. And is that at Column 4, Lines 63 through
09:20 11 Column 5, Line 8 in Frink?

09:20 12 A. Yes.

09:20 13 Q. So what's your opinion with respect to whether
09:20 14 Frink discloses the sensor limitation?

09:20 15 A. I believe Frink does disclose this limitation.

09:20 16 Q. And what about the next element? The receiver
09:20 17 limitation?

09:20 18 A. This one, you'll recall, is about the aircraft
09:20 19 receiving position and movement data from the ship,
09:20 20 from the reference vehicle. And the difference is,
09:20 21 again, just the phrase "relative to earth." So this
09:20 22 claim's just saying it has to be compared to the earth.

09:20 23 But, again, Frink discloses not only aircraft
09:21 24 can be using GPS, but the marine vessel can be using
09:21 25 GPS. So that means that the boat has GPS. And we know

09:21 1 that the boat is sending its heading and speed to the
09:21 2 aircraft, and that's relative to earth because you're
09:21 3 measuring your speed, for instance, on the water.

09:21 4 Q. And so where in Frink does it disclose the
09:21 5 receiver limitation of Claim 7 of the '909 patent?

09:21 6 A. In Column 8, Line 31 to 44 and Column 8,
09:21 7 Line 53 to 61 and Column 9, Line 25 to 28.

09:21 8 Q. And what about the control system limitation?
09:21 9 Does Frink disclose that?

09:21 10 A. If we go through it step by step again, the
09:21 11 beginning of it, control system connected to the
09:21 12 sensors and receivers is just the same as Claim 1. So
09:21 13 I'm showing the same evidence on the left. It's
09:21 14 Column 5, Lines 15 to 24. It's the same.

09:21 15 Q. And what about the calculating? Does Frink
09:22 16 similarly disclose calculating based on an oval
09:22 17 pattern?

09:22 18 A. Yes. It's -- again, I'm showing the same
09:22 19 evidence because it's word for word the same for the
09:22 20 section that I have highlighted. So it's Lines --
09:22 21 Column 9, Lines 1 to 8 and Column 8, Lines 36 to 42.

09:22 22 Q. And what about the last limitation with the
09:22 23 "or"? Does Frink also disclose this based on the oval
09:22 24 pattern?

09:22 25 A. Yes. He does. If we look at the words here,

09:22 1 you'll see there's one difference twice over, which is
09:22 2 it says: Maintains a selected position relative to the
09:22 3 reference vehicle "or" a selected velocity relative to
09:22 4 the reference vehicle.

09:22 5 So Claim 7's a little bit different here, but
09:22 6 of course, we already heard that Frink, in Column 9,
09:22 7 Lines 1 to 8, is saying you can be commanded to fly an
09:22 8 oval pattern.

09:22 9 And to fly that oval pattern, you're going to
09:22 10 have to be able to both have a velocity of increasing
09:23 11 and decreasing relative to the boat, and you are to be
09:23 12 orbiting the position of the boat. So you need both.

09:23 13 Q. And what about the last limitation in Claim 7?
09:23 14 Does Frink disclose that?

09:23 15 A. This is, again, similar to the language you
09:23 16 saw before because at the end it says "prior to
09:23 17 flight." And it says: The selected position and
09:23 18 velocity of the aircraft is selected and input prior to
09:23 19 flight.

09:23 20 And just like before up here in this, what I'm
09:23 21 circling right now in Column 3, Line 18 to 30, Frink
09:23 22 says it both ways. He says it up at the top half it
09:23 23 can be preprogrammed, and then he says in the bottom
09:23 24 half it can even be done while the aircraft is in
09:23 25 flight.

09:23 1 Q. And what is your opinion with respect to
09:23 2 whether Frink anticipates or renders obvious Claim 7 of
09:23 3 the '909 patent?

09:23 4 A. I believe Frink anticipates and renders
09:23 5 obvious Claim 7 of the '909 patent.

09:23 6 Q. Now, let's move on to the last two claims that
09:24 7 are asserted in this case, Claims 10 and Claim 11.

09:24 8 Are these dependent claims?

09:24 9 A. Yes. They are.

09:24 10 Q. What does that mean?

09:24 11 A. That means they add an additional element to
09:24 12 an existing claim that we've already talked about.
09:24 13 They just make it even longer.

09:24 14 Q. Let's look at that additional element, though.
09:24 15 Well, first off, since it's referring to
09:24 16 Claim 7 here, do you see that?

09:24 17 A. I do.

09:24 18 Q. And does your same analysis for Claim 7 apply
09:24 19 to Claim 10?

09:24 20 A. Yes. So all the -- Claim 10 builds on
09:24 21 Claim 7. So everything that I decided for Claim 7 is
09:24 22 already what I believe for Claim 10, except we have a
09:24 23 new additional element that we have to also consider.

09:24 24 Q. And Claim 11 also refers to the system
09:24 25 according to Claim 7.

09:24 1 Does your analysis for Claim 7 also apply to
09:24 2 Claim 11?

09:24 3 A. Yes.

09:24 4 Q. Let's start with Claim 10 and let's look at
09:24 5 that additional limitation.

09:24 6 Does Frink disclose the additional limitation
09:25 7 in Claim 10?

09:25 8 A. Yes.

09:25 9 Q. Where?

09:25 10 A. So additional bit in Claim 10 -- and you saw
09:25 11 this before yesterday -- is it's saying that
09:25 12 information about the position movement of the boat,
09:25 13 for example, it's coming from the boat. The reference
09:25 14 vehicle is sending it itself.

09:25 15 And in Frink, I've highlighted the section.
09:25 16 It says that the flight navigation uses the unmanned
09:25 17 aerial vehicle's onboard receiver to receive the
09:25 18 navigation data from... And that's important, from the
09:25 19 moveable surface object.

09:25 20 So that's disclosing that it's actually coming
09:25 21 from the boat.

09:25 22 Q. And where is that in Frink?

09:25 23 A. It's in Column 8, Lines 31 to 44.

09:25 24 Q. So what is your opinion on whether Frink
09:25 25 anticipates or renders obvious Claim 10 of the '909

09:25 1 patent?

09:25 2 A. I believe that Frink anticipates and renders
09:25 3 obvious Claim 10 of the '909 patent.

09:25 4 Q. Let's move on to Claim 11.

09:26 5 A. Sure.

09:26 6 Q. Does Frink disclose the additional
09:26 7 requirements in Claim 11?

09:26 8 A. So when you look at Claim 11, the additional
09:26 9 requirement is how we're determining the position of
09:26 10 the aircraft. We're using GPS just like your phone.

09:26 11 And if we look back at Frink, the same way I
09:26 12 talked about it before, Frink very precisely says using
09:26 13 GPS such as the Axiom navigation's Swift A1, which is
09:26 14 GPS. And that's Column 4, Line 63 to Column 5, Line 8.

09:26 15 Q. What is your opinion with respect to whether
09:26 16 Frink anticipates or renders obvious Claim 11 of the
09:26 17 '909 patent?

09:26 18 A. I believe he does anticipate and render
09:26 19 obvious Claim 11 also.

09:26 20 Q. So did Textron invent having an aircraft
09:26 21 follow a reference vehicle?

09:26 22 A. No.

09:26 23 Q. And to clarify, did the United States Patent
09:26 24 Office have the benefit of evaluating Mr. Frink's
09:26 25 patent when it was considering whether to issue or

09:26 1 grant the '909 patent?

09:27 2 A. No.

09:27 3 Q. Let's move on to the '752 patent.

09:27 4 A. Sure.

09:27 5 Q. Do you have an opinion on who would a person
09:27 6 of ordinary skill in the art be with respect to the
09:27 7 '752 patent?

09:27 8 A. I do. And that's up on the slide on
09:27 9 everybody's screen.

09:27 10 Q. And what is that opinion?

09:27 11 A. It's that you have a bachelor's degree or
09:27 12 better in engineering, for example, or robotics so you
09:27 13 understand flight controls, and that you have some
09:27 14 experience with those systems. And, of course, just
09:27 15 like I said before, nothing beats real-world education
09:27 16 in the real world -- I'm sorry -- nothing beats
09:27 17 real-world experience.

09:27 18 And so if you have significant experience in
09:27 19 the real world, that always substitutes for schooling.

09:27 20 Q. And in the '909 -- I'm sorry -- in the '752
09:27 21 patent, which claim is asserted?

09:27 22 A. Only one claim, Claim 13.

09:27 23 Q. Does the '752 patent have other claims?

09:27 24 A. Yes. It's got 20 claims altogether, but the
09:27 25 only claim being asserted in this case is Claim 13.

09:28 1 Q. So are you offering opinion on whether any of
09:28 2 those other asserted claims are invalid?

09:28 3 A. No.

09:28 4 Q. So what does it mean if the jury agrees with
09:28 5 you that Claim 13 of the '752 patent is invalid?

09:28 6 Is the entire patent invalid?

09:28 7 A. No.

09:28 8 Q. If you could, please turn to DX-396 in your
09:28 9 binder.

09:28 10 A. I'm there.

09:28 11 Q. What is this?

09:28 12 A. This is an article, "Design and Pilot
09:28 13 Evaluation of the RAH-66 Comanche Selectable Control
09:28 14 Modes."

09:28 15 Q. And who's the first author of that article?

09:28 16 A. Mr. Gold.

09:28 17 Q. And how does this article relate to your
09:28 18 analysis of whether the '752 -- Claim 13 of the '752
09:28 19 patent is valid?

09:28 20 A. I studied this article to understand whether
09:29 21 somebody invented the things in Claim 13 before
09:29 22 Claim 13 was written.

09:29 23 Q. And when was -- can we refer to this article
09:29 24 as the Gold article?

09:29 25 A. Sure.

09:29 1 Q. Mr. Gold's article?

09:29 2 When was Mr. Gold's article published?

09:29 3 A. It was published in, I believe, 1993.

09:29 4 MR. SCHLESINGER: Your Honor, DJI moves
09:29 5 to admit Defendants' Exhibit 396.

09:29 6 MR. RICH: No objection.

09:29 7 THE COURT: It'll be admitted.

09:29 8 MR. SCHLESINGER: Actually, we can go
09:29 9 back to the slides. Thank you.

09:29 10 BY MR. SCHLESINGER:

09:29 11 Q. You mentioned this was Mr. Gold's article.
09:29 12 Who else authored this article?

09:29 13 A. James Dryfoos.

09:29 14 Q. And who did Mr. Dryfoos work for?

09:29 15 A. Boeing Helicopter Division.

09:29 16 Q. What kind of aircraft -- you've mentioned
09:29 17 helicopters. What type of helicopters does Boeing
09:29 18 make?

09:29 19 A. I hope I don't get this wrong, but I think
09:29 20 they make the Apache helicopter. Pretty sure about
09:30 21 that.

09:30 22 Q. And what type of helicopters is this article
09:30 23 about?

09:30 24 A. It's about military attack helicopters, and
09:30 25 it's about the controls in those military helicopters.

09:30 1 They're two-seaters, where the pilot's sitting one
09:30 2 behind the other. And they have all kinds of weaponry
09:30 3 and defensive material onboard, and they have to be
09:30 4 able to do battle no matter what the conditions are.

09:30 5 Q. Did the Patent Office have Mr. Gold's article
09:30 6 before them when they considered whether to grant the
09:30 7 '752 patent?

09:30 8 A. No.

09:30 9 Q. And you mentioned Gold was published in 1993?

09:30 10 A. Yes.

09:30 11 MR. SCHLESINGER: Could we please pull up
09:30 12 the '752 patent?

09:30 13 And let's look in and get when it was
09:30 14 filed.

09:30 15 BY MR. SCHLESINGER:

09:30 16 Q. When was the '752 patent filed?

09:30 17 A. It's right here, July 15, 2011.

09:31 18 Q. It's quite a bit of time after 1993, right?

09:31 19 A. Nearly 18 years after the Gold article was
09:31 20 published.

09:31 21 Q. And how do you know that the Patent Office
09:31 22 didn't consider Gold when it decided whether to issue
09:31 23 the '752 patent?

09:31 24 A. Similar to what we explained on the last
09:31 25 patent, there's this whole section called "references

09:31 1 cited" that I'm circling, and that lists out everything
09:31 2 that the Patent Office had considered, and it says
09:31 3 continued. So this is partial.

09:31 4 Q. Okay. And is that the continued part now
09:31 5 shown on the screen on the second page of the '752
09:31 6 patent?

09:31 7 A. Yes.

09:31 8 Q. And is Gold listed on either page?

09:31 9 A. Ask that again?

09:31 10 Q. Is Gold listed in either of those pages?

09:31 11 A. No.

09:31 12 Q. And so that means the Patent Office didn't
09:31 13 look at Gold and see what it disclosed with the '752
09:31 14 patent claims?

09:31 15 A. Correct. They didn't look at Gold.

09:31 16 MR. SCHLESINGER: We can go back to the
09:32 17 slides, please.

09:32 18 BY MR. SCHLESINGER:

09:32 19 Q. What is Gold about?

09:32 20 A. Well, Boeing was building a new
09:32 21 next-generation military helicopter a lot like the
09:32 22 Apache. It was called the Comanche. It's hardened.
09:32 23 So if you shoot at it from below, it's armored down
09:32 24 here so that the bullets can't get through and hurt the
09:32 25 helicopter or the pilots in the helicopter. And they

09:32 1 really wanted this to be stable and safe in really
09:32 2 dangerous situations.

09:32 3 So the whole patent is about the question of:
09:32 4 If we have some autopilot modes on this helicopter and
09:32 5 we're flying in dangerous situations, what should
09:32 6 happen? How should the pilot be able to let go of the
09:32 7 controls and have the helicopter turn on automatically?

09:32 8 And so just like we talked about yesterday,
09:32 9 it's all about this question of: How is it that you
09:32 10 get your autopilot to take over and make the helicopter
09:32 11 safe when you let go of the controls? And then, of
09:32 12 course, when you take back over the controls and use
09:33 13 them, how does the helicopter behave?

09:33 14 Q. And I see part of the section highlighted
09:33 15 refers to "velocity stabilization," and then there's a
09:33 16 slash, "hover hold and altitude hold."

09:33 17 Can you explain how we should read when
09:33 18 something's on the left side of the slash versus the
09:33 19 right side of the slash?

09:33 20 A. Yeah. This is a little new. We didn't have
09:33 21 to talk it through yesterday. But in helicopters, when
09:33 22 we're talking about all the autopilots and the way they
09:33 23 work, we're always wondering: How does the helicopter
09:33 24 behave when you use the controls, and then what does
09:33 25 the autopilot do when you let go of the controls?

09:33 1 You always have to think about those two
09:33 2 cases, because you're frequently going between you
09:33 3 controlling the helicopter and letting the helicopter
09:33 4 control itself, and then you control some more, then
09:33 5 you let go and let it control itself. You're going
09:33 6 back and forth all the time.

09:33 7 This is not how I drive my car.

09:33 8 And so the slash, whatever's to the left of
09:33 9 the slash is how the helicopter behaves when you're
09:33 10 controlling it. So, for instance, velocity
09:34 11 stabilization here is a specific thing. It means that
09:34 12 as I move the stick forward, the more I move the stick
09:34 13 forward, the faster the helicopter goes but stably. It
09:34 14 won't upset itself if there's bad wind currents.

09:34 15 And then whatever's after the slash is what
09:34 16 happens when you let go of the controls. So hover hold
09:34 17 is saying if I let go of the controls, I want the
09:34 18 helicopter to hover.

09:34 19 Q. You mentioned "autopilot." Is autopilot
09:34 20 always on?

09:34 21 A. No. When you are flying a helicopter, you
09:34 22 know, you turn on the rotors, you lift off. You decide
09:34 23 if you're going to need autopilot today for your
09:34 24 flight.

09:34 25 If you're going to need these modes, you have

09:34 1 to hit a switch to enable autopilot. And that's a
09:34 2 safety feature, because if something malfunctions
09:34 3 later, you want to be able to turn off autopilot if
09:34 4 somebody shoots you and damages something.

09:34 5 So you turn on the mode when you lift off and
09:34 6 you start to fly, then later, half an hour later,
09:35 7 whenever you want, you can actually use it. So now you
09:35 8 can actually, for instance, push forward on the stick,
09:35 9 do the right thing, let go of the stick and the
09:35 10 autopilot will take over automatically.

09:35 11 Q. Does Gold refer to -- actually, let me strike
09:35 12 that.

09:35 13 I see on the slide you have -- it's Degraded
09:35 14 Visual Environment, DVE.

09:35 15 A. Yes.

09:35 16 Q. What is that?

09:35 17 A. I believe that exact same language was
09:35 18 actually in the '752 patent yesterday too. That means
09:35 19 when the pilot can't necessarily see everything. It
09:35 20 could be brownout. It could be you're flying in fog or
09:35 21 really bad weather.

09:35 22 Q. And we'll move on to the next slide.

09:35 23 Does Gold disclose a control system?

09:35 24 Oops. There we go.

09:35 25 A. Yes. This is a slide where Gold is talking

09:35 1 about the idea that the Comanche helicopter or -- this
09:35 2 is just a long way of saying Comanche. The Comanche
09:35 3 helicopter has a control system, and it talks about the
09:36 4 fact that it has manual control and all these autopilot
09:36 5 modes that can take over and work with you.

09:36 6 Q. And are those the button you were referring to
09:36 7 so that you could fly in the autopilot modes?

09:36 8 A. Yes. You turn on all those modes so that
09:36 9 later during flight, you can automatically go between
09:36 10 them and manual control as you wish.

09:36 11 Q. And this is -- these cites are a little
09:36 12 different on this one. I believe what we could just
09:36 13 refer to -- we're looking at Defendants' Exhibit 396,
09:36 14 and you see that long list of numbers. Let's just
09:36 15 refer to the last four as, for example here, 4333.

09:36 16 Is that where these quotes come from, Gold?

09:36 17 A. Yes.

09:36 18 Q. And on the one on the left, it refers to
09:36 19 "produce superior flight performance and low pilot
09:36 20 workload."

09:36 21 What is that referring to?

09:36 22 A. If you're able to collaborate with your
09:36 23 autopilot and decide what it's doing, what you're
09:36 24 doing, and let go of the controls when you need to, one
09:36 25 thing that buys you is -- we talked about how flying a

09:37 1 helicopter is a dance. You're using your hands and
2 feet all the time.

09:37 3 If you can let go sometimes, that lets your
09:37 4 brain relax. It lets you recover from high-stress
09:37 5 situations, and so that makes your workload go down,
09:37 6 where workload is kind of how anxious you are.

09:37 7 Superior flight performance, well, if you want
09:37 8 to go forward at 25 knots in a very tricky situation
09:37 9 with low visibility, if you can just tell the
09:37 10 helicopter, just do that for me, and you just hold the
09:37 11 stick there, that's a lot easier than trying to fight
09:37 12 all of the wind currents and turbulence and keep the
09:37 13 helicopter upright manually. So you're going to fly
09:37 14 better and with less stress.

09:37 15 Q. And I see a reference to "control law design."

09:37 16 How does that relate to control loops?

09:37 17 A. You're going to be turning on and off
09:37 18 different control loops so that you're deciding what
09:37 19 you're controlling when you actually fly the
09:37 20 helicopter.

09:37 21 MR. SCHLESINGER: And let's turn back to
09:37 22 Claim 13 of the '752 patent.

23 BY MR. SCHLESINGER:

09:37 24 Q. What is your opinion on whether Gold qualifies
09:37 25 as prior art to the '752 patent?

09:38 1 A. I believe Gold is prior art.

09:38 2 Q. And what is your opinion on whether Gold
09:38 3 renders Claim 13 of the '752 patent obvious?

09:38 4 A. I believe Gold does render Claim 13 obvious.

09:38 5 Q. There's a lot of limitations here, but let's
09:38 6 walk through them one by one.

09:38 7 A. Sorry.

09:38 8 Q. Let's start with the first one.

09:38 9 What is your opinion with respect to whether
09:38 10 Gold discloses a flight control system for a rotary
09:38 11 aircraft?

09:38 12 A. So that's just the preamble. And as we
09:38 13 already pointed out, Gold says this has a control
09:38 14 system on the Comanche. So I believe that we've
09:38 15 disclosed that already here.

09:38 16 Q. And is that on Page 4333 of Gold?

09:38 17 A. Yes. 4333.

09:38 18 Q. What about the rest of the preamble, the
09:38 19 rotary aircraft having to list -- the listed
09:38 20 controllers? Does Gold disclose that?

09:38 21 A. Yes.

09:38 22 Q. Where?

09:38 23 A. So that limitation, remember, is saying it's a
09:38 24 particular kind of rotary aircraft. It's one that has
09:39 25 these controllers right here.

09:39 1 And Gold actually explains that the Comanche
09:39 2 cockpit has controllers, and specifically it says it
09:39 3 has a 4-axis controller. That's a very fancy way of
09:39 4 saying it has a special device that they were doing
09:39 5 their experiments with. When you twist that device, it
09:39 6 goes left and right. When you lift up, it goes up.
09:39 7 When you push down, it goes down. When you go forward,
09:39 8 it goes forward; backward, backward; and right, right;
09:39 9 left, left. So it gives you longitudinal, lateral,
09:39 10 directional and vertical control.

09:39 11 Q. And is that on Page 4339 of Gold?

09:39 12 A. Yes.

09:39 13 Q. And you mentioned forward, backward and all
09:39 14 these things.

09:39 15 How does that relate to what's listed in the
09:40 16 preamble of Claim 1?

09:40 17 A. Did you say Claim 1?

09:40 18 Q. I'm sorry. Claim 13. I misspoke.

09:40 19 A. Those are all the controllers that we need the
09:40 20 rotary aircraft to have, and so I believe that Gold's
09:40 21 disclosure meets that.

09:40 22 Q. For example, which one's the longitudinal
09:40 23 controller?

09:40 24 A. The 4-axis controller when you move it forward
09:40 25 and backward.

09:40 1 Q. How about the lateral controller?

09:40 2 A. The 4-axis controller when you move it
09:40 3 sideways.

09:40 4 Q. The directional controller?

09:40 5 A. You twist it, and that gives you the
09:40 6 directional control.

09:40 7 Q. And the vertical controller?

09:40 8 A. It comes up and down. It pulls up and down
09:40 9 like a knob, and that gives you up and down control
09:40 10 which is vertical control.

09:40 11 Q. What is your opinion with respect to whether
09:40 12 Gold discloses the preamble of Claim 13?

09:40 13 A. I believe Gold does disclose the preamble.

09:40 14 Q. Let's move on to the next limitation, "a
09:40 15 longitudinal loop design having..."

09:40 16 Does Gold disclose this limitation?

09:40 17 A. Yes. I need to explain the new figure we're
09:40 18 looking at on the left now.

09:41 19 So this longitudinal loop design limitation is
09:41 20 all about having different modes of control, like we
09:41 21 talked about yesterday, to control the helicopter's
09:41 22 attitude, like this, or rate or speed.

09:41 23 Q. And can you explain how that's shown in
09:41 24 Figure 1 in Gold?

09:41 25 A. Sure. We can step through it one at a time.

09:41 1 So let's just start with the bottom one, pitch
09:41 2 rate loop. You'll recall pitch rate loop means how
09:41 3 fast the helicopter does this. And any helicopter with
09:41 4 an autopilot has to have that pitch rate loop so it can
09:41 5 control its rate so it doesn't crash.

09:41 6 And if you look at the very top of this
09:41 7 complicated figure, this figure breaks up into three
09:41 8 parts, but the top one actually is about what's called
09:41 9 angular rate which is pitch rate. And it's a model,
09:41 10 it's a loop, that's figuring out how to control the
09:42 11 angular rate of change of the helicopter.

09:42 12 Q. Does Gold disclose a pitch rate loop?

09:42 13 A. Yes.

09:42 14 Q. Let's move on to a pitch attitude loop.

09:42 15 A. Sure. So a pitch attitude loop is the
09:42 16 electronics that's going to figure out how to be able
09:42 17 to maintain a specific angle as you fly, for example,
09:42 18 just holding 10 degrees or just holding 20 degrees.

09:42 19 And I've colored that in green here in this
09:42 20 same schematic. Here you can see attitude right there,
09:42 21 and it's actually measuring attitude and then using a
09:42 22 model of attitude to decide how to control for
09:42 23 attitude.

09:42 24 Of course, it controls attitude by changing
09:42 25 rates, by using a rate to make sure it can hold that

09:42 1 angle as it flies through the air.

09:42 2 Q. And the green box you colored here in
09:42 3 Figure 1, that's just below the purple box on the top?

09:42 4 A. Yes.

09:42 5 Q. What about a forward speed hold loop? Does
09:42 6 Gold disclose that?

09:42 7 A. Yes.

09:42 8 Q. Where?

09:42 9 A. If you go forward one more slide, forward
09:43 10 speed hold loop, the idea that the autopilot needs to
09:43 11 be able to -- if you want it to go at 20 miles an hour
09:43 12 constantly, it needs to be able to hold 20 miles an
13 hour.

09:43 14 So you need, again, electronics to do that.
09:43 15 And, of course, the way you do that is the autopilot
09:43 16 needs to -- if you're controlling the speed, it needs
09:43 17 to figure out how to maneuver the helicopter to keep
09:43 18 you at 20 miles an hour constantly.

09:43 19 And so if you look at the bottom here, this is
09:43 20 called velocity stabilization. And there's a
09:43 21 groundspeed coming in here because it's measuring the
09:43 22 speed, groundspeed and airspeed as a matter of fact,
09:43 23 and it's using a velocity model. And it's actually
09:43 24 using those to control the forward speed, and that is
09:43 25 the forward speed hold loop.

09:43 1 Q. And for the record, the blue box you have
09:43 2 shown here is at the bottom of Figure 1?

09:43 3 A. Correct.

09:43 4 Q. Let's look at the first wherein clause.

09:44 5 Does Gold disclose the forward speed hold loop
09:44 6 and the wherein clause about engaging the forward speed
09:44 7 hold loop automatically when the controller's returned
09:44 8 to a detent position and the aircraft groundspeed is
09:44 9 outside of the groundspeed threshold?

09:44 10 A. Yes.

09:44 11 Q. How do you know that?

09:44 12 A. Well, I'm going to teach you how to read
09:44 13 another table now.

09:44 14 So on the left side, we have some text: The
09:44 15 pitch axis response type is attitude command/velocity
09:44 16 hold.

09:44 17 We were just talking about these slashes. So
09:44 18 to remind you, that mode that Gold's disclosing,
09:44 19 attitude command/velocity hold, that means when I move
09:44 20 the stick forward, when I move the little controller
09:44 21 forward, the more I move it forward, the more I'm
09:44 22 commanding a certain angle. That's attitude command
09:44 23 because angle is attitude.

09:44 24 When I let go of it, it goes to velocity hold,
09:45 25 which means it takes the speed I'm moving at when I let

09:45 1 go and it just continues at that speed. So I'm
09:45 2 commanding changes to the angle. And when I let go,
09:45 3 the autopilot's automatically controlling the speed so
09:45 4 I keep going at the same speed.

09:45 5 That's attitude command/velocity hold.
09:45 6 Sometimes you write it AC/VH. That's what it says up
09:45 7 here in the text.

09:45 8 Now, I want you to see how to read it in the
09:45 9 figure down below because that gives us even more
09:45 10 detail.

09:45 11 So first of all, there's a number line here.
09:45 12 That number line is just showing us how to read the
09:45 13 rest of the figure in terms of how fast the
09:45 14 helicopter's going. So if the helicopter was going
09:45 15 40 knots, which is like 43 miles an hour, we'd be kind
09:45 16 of here on the number line. If the helicopter was
09:45 17 going almost nothing, it was like moving at 1 mile an
09:45 18 hour, it would be here in the figure.

09:45 19 So it's just a number line. The further you
09:46 20 are to the right, the faster you're going. So let me
09:46 21 clear those.

09:46 22 So now longitudinal loops are all about what's
09:46 23 happening this way, and that's the same as pitch. So I
09:46 24 just made this black so we can just pay attention to
09:46 25 this direction. That's what matters in this table.

09:46 1 And if we look at the limitation it says: The
09:46 2 forward speed hold loop, which you know is the same as
09:46 3 velocity hold here, it needs to automatically engage
09:46 4 when the longitudinal controller is returned to detent.
09:46 5 That part means if I let go of the controls, it has to
09:46 6 automatically start holding forward speed which is
09:46 7 velocity.

09:46 8 And then it says this has to happen when the
09:46 9 aircraft's groundspeed is outside a threshold. So when
09:46 10 you're going faster than something, and that something
09:46 11 in this picture is this -- really this area here.

09:46 12 Q. And which area are you pointing to?

09:46 13 A. It's a darkened area that's from about
09:46 14 negative 5 knots to 5 knots, and it's labeled "hover
09:47 15 hold."

09:47 16 So what this is saying is for that claim
09:47 17 limitation is, if I'm going faster than something, in
09:47 18 this case 5 knots, when I let go of the stick, what
09:47 19 happens? It needs to hold the speed, and that's
09:47 20 exactly what this figure is saying happens in this
09:47 21 entire region. It's attitude command/velocity hold.

09:47 22 Q. And so does Gold disclose a forward speed hold
09:47 23 loop that engages as required by the wherein clause?

09:47 24 A. Yes.

09:47 25 Q. And just to be clear, you're looking at

09:47 1 Figure 2 in the text on Page 4335 of Gold?

09:47 2 A. Yes.

09:47 3 Q. Let's move on to the next wherein clause that
09:47 4 also refers to a pitch attitude loop.

09:47 5 Does Gold disclose: Wherein longitudinal
09:47 6 maneuverability of the rotary aircraft is controlled by
09:47 7 either the pitch attitude loop or the pitch rate loop
09:47 8 when the longitudinal controller is out of the detent
09:48 9 position?

09:48 10 A. Yes.

09:48 11 Q. How do you know that?

09:48 12 A. So we talked about how, you know, you lifted
09:48 13 off the airplane, you turned on the autopilot modes,
09:48 14 you're flying, you've pushed forward, right? And
09:48 15 you're moving and you let go, and it just holds that
09:48 16 speed. That was the last limitation.

09:48 17 Now it's -- let's say it's holding its speed.
09:48 18 What happens when you take the controller and you
09:48 19 actually move it forward or backward? How does it
09:48 20 behave? That's what this is all about. So when you
09:48 21 start exerting control, what happens?

09:48 22 And when you take it and you move it, the
09:48 23 limitation is saying you need to be controlled by
09:48 24 either pitch attitude or pitch rate. Pitch attitude
09:48 25 means when I move that stick, it's controlling the

09:48 1 angle. Pitch rate, when I move that stick forward,
09:48 2 it's controlling how fast it changes the angle.

09:48 3 And we actually have in the picture on the
09:48 4 left, the left side of that slash is attitude command
09:49 5 which is exactly the same as pitch attitude loop. So
09:49 6 we are controlled by pitch attitude when you move that
09:49 7 controller.

09:49 8 Q. Is that enough to meet Claim -- the
09:49 9 requirement of Claim 13?

09:49 10 A. Yes.

09:49 11 Q. What is your opinion with respect to whether
09:49 12 Gold discloses the entire longitudinal loop design
09:49 13 claimed in Claim 13?

09:49 14 A. I believe Gold discloses it.

09:49 15 Q. Let's move on to the lateral loop design.
09:49 16 Does Gold disclose a lateral loop design?

09:49 17 A. Yes.

09:49 18 Q. Where?

09:49 19 A. On the same figure I've made brighter, the
09:49 20 roll part of the figure so that we can talk through it.

09:49 21 Q. And you're referring to Figure 2?

09:49 22 A. I am. It's the middle part of Figure 2. And
09:49 23 it's also the text in our excerpt at the top from 4335
09:49 24 that talks about a roll response type.

09:49 25 Q. Does Gold disclose: Wherein the lateral speed

09:50 1 hold loop automatically engages when the lateral
09:50 2 controller is returned to a detent position and the
09:50 3 aircraft groundspeed is outside the first groundspeed
09:50 4 threshold?

09:50 5 A. Yes.

09:50 6 Q. And actually, just to be clear, on the last
09:50 7 loop, the longitudinal loop design, what's the
09:50 8 groundspeed threshold?

09:50 9 A. 5 knots.

09:50 10 Q. And what's the groundspeed threshold here?

09:50 11 A. 5 knots.

09:50 12 Q. Where in Gold does it disclose this limit --
09:50 13 wherein clause?

09:50 14 A. Here in the roll section Gold says that in
09:50 15 this whole region, when you're outside of 5 knots,
09:50 16 you're running the sideways control of the helicopter
09:50 17 and attitude command groundspeed hold.

09:50 18 That means if you are pushing the control to
09:50 19 the right, make the helicopter go sideways like this
09:50 20 perhaps, because you're looking at the treeline or
09:51 21 something like that. When you let go of the controls,
09:51 22 that's the hold part, right? Groundspeed hold. So
09:51 23 it's going to hold the same speed.

09:51 24 It's not a forward speed, right? It's a
09:51 25 sideways speed or a lateral speed. But it's going to

09:51 1 hold that speed. That's what this here is saying.

09:51 2 Q. What about the next limitation, a roll rate
09:51 3 loop? And then a wherein clause that: The lateral
09:51 4 maneuverability of the rotary aircraft is controlled by
09:51 5 either the lateral speed hold loop or the roll rate
09:51 6 loop when the lateral controller's out of the detent
09:51 7 position.

09:51 8 A. For this one, again, out of the detent, this
09:51 9 is when you actually take the controller and move it.
09:51 10 So now it's prescribing something that has to happen
09:51 11 when you move the controller.

09:51 12 And it's saying one of two things has to
09:51 13 happen, either you control the speed or you control the
09:51 14 roll rate. And actually in Gold, we even have this
09:51 15 rate command right here. When you're going faster than
09:51 16 about 70 knots, if you move that control to the right,
09:52 17 you're actually controlling the rate. And it does that
09:52 18 because it makes it fly a little bit like an airplane.

09:52 19 Q. What is your opinion on whether Gold discloses
09:52 20 Claim 13's lateral loop design?

09:52 21 A. I believe Gold does disclose this whole loop
09:52 22 design.

09:52 23 Q. All right. That covers the lateral loop
09:52 24 design. Let's move on to the next loop.

09:52 25 A directional loop design. Does Gold disclose

09:52 1 the claim directional loop design?

09:52 2 A. Yes.

09:52 3 Q. Where?

09:52 4 A. Same figure we were looking at before,
09:52 5 Figure 2. Now we're just -- I've boldfaced the very
09:52 6 bottom which is yaw. Yaw, you'll recall, is just the
09:52 7 angle that you're facing: North, south, east, west.
09:52 8 So it's the same as directional control.

09:52 9 Q. Let's start with the -- actually, I'm sorry.
09:52 10 Where does it disclose a heading hold loop in
09:52 11 Gold?

09:52 12 A. It talks about heading hold both up here in
09:53 13 4334, "heading hold control laws," and it talks about
09:53 14 it in the figure, Figure 2.

09:53 15 Q. Where in Figure 2?

09:53 16 A. So the very bottom of Figure 2 where it says
09:53 17 "yaw," you can see that here it's saying "heading hold"
09:53 18 to the right of the slash and "rate command" to the
09:53 19 left.

09:53 20 So that means -- and if you look in the -- on
09:53 21 the right side in the claim, it says you need a heading
09:53 22 hold loop to happen whenever you go back to detent. It
09:53 23 says re-engage.

09:53 24 So every time you twist the knob, it's going
09:53 25 to move. Every time you let go of the knob, it's going

09:53 1 to engage heading control, which means you're going to
09:53 2 hold the heading as that. You twist it again, it's
09:53 3 going to move again. You let go again, it's going to
09:53 4 re-engage that heading hold in the new direction.

09:53 5 And so since the command type here for yaw is
09:53 6 rate command/heading hold, that means when you spin
09:53 7 this, you're changing the angle, the rate of the angle
09:53 8 change, and you let go of the spinner, it's going to
09:54 9 hold that heading.

09:54 10 Q. And you mentioned a groundspeed threshold of
09:54 11 5 knots. What happens if you let go of that controller
09:54 12 above 5 knots in Gold?

09:54 13 A. The heading hold loops gets re-engaged.

09:54 14 Q. And you mentioned the rate command.
09:54 15 Is that a yaw rate command?

09:54 16 A. Yes.

09:54 17 Q. Does that meet the -- a yaw rate command loop
09:54 18 claimed in Claim 13?

09:54 19 A. Yes.

09:54 20 Q. So what is your opinion on whether Gold
09:54 21 discloses the entire directional loop design claimed in
09:54 22 Claim 13?

09:54 23 A. I believe Gold does disclose this whole loop
09:54 24 design.

09:54 25 Q. Let's move on to the vertical control loop.

09:54 1 Does Gold disclose the vertical control loop
09:54 2 claimed in Claim 13?

09:54 3 A. I believe so. Yes.

09:54 4 Q. Let's start with the altitude hold loop in the
09:54 5 wherein clause: The altitude hold loop automatically
09:54 6 engages when the vertical controller is returned to a
09:54 7 detent position and the aircraft groundspeed is inside
09:54 8 the first groundspeed threshold.

09:54 9 Does Gold disclose this?

09:54 10 A. Yes.

09:54 11 Q. Where?

09:55 12 A. So we can see up in the top box, which is
09:55 13 4338, that Gold says: This is going to be a vertical
09:55 14 rate command altitude height hold.

09:55 15 And when the vertical controllers return to a
09:55 16 detent, that means you're pulling up and you let go.
09:55 17 So you're -- maybe your helicopter's at 500 feet. You
09:55 18 pull up, and you start going up 10 feet a minute. And
09:55 19 after half a minute or so, you let go, and you've
09:55 20 gotten to 550 feet. You want -- when you let go, you
09:55 21 want the helicopter to stay at 550 feet of altitude.

09:55 22 And in the writing on the left, it says
09:55 23 "vertical rate command." So when I pull up and down on
09:55 24 that knob, I'm commanding the speed at which I go up
09:55 25 and down.

09:55 1 When I let go of it, it's height hold.

09:55 2 Attitude hold and height hold are the same thing.

09:55 3 Q. You mentioned the vertical speed. Is that the
09:55 4 vertical speed loop claimed in Claim 13?

09:55 5 A. Yes.

09:55 6 Q. And is that shown on Page 4338 of Gold?

09:56 7 A. Yes.

09:56 8 Q. In the earlier description, you were talking
09:56 9 about the attitude hold and how it engages and meets
09:56 10 the wherein clause.

09:56 11 Is that on Pages 4337 through 4338 of Gold?

09:56 12 A. Yes.

09:56 13 Q. And does that occur when the groundspeed is
09:56 14 less than the 5 knots first groundspeed threshold?

09:56 15 A. Yes.

09:56 16 Q. And I also just want to confirm, on the
09:56 17 directional loop, you mentioned the heading hold would
09:56 18 be re-engaged.

09:56 19 Just to confirm, the heading hold would be
09:56 20 re-engaged if the groundspeed is less than 5 knots,
09:56 21 which is the first groundspeed threshold; is that
09:56 22 correct?

09:56 23 A. Yes.

09:56 24 Q. I believe we actually went through all those
09:56 25 loops.

09:56 1 A. We did.

09:56 2 Q. But I think you have a little bit additional
09:56 3 evidence -- or I'm curious if you have a little
09:57 4 additional evidence on the vertical speed hold loop.

09:57 5 Is there any diagrams that disclose that?

09:57 6 A. There is an even more complicated-looking
09:57 7 diagram. Yes.

09:57 8 Q. Where is that?

09:57 9 A. It is on Gold 4337. It's called Figure 5.

09:57 10 Q. It's a little complex, but can you break it
09:57 11 down for us?

09:57 12 A. Sure.

09:57 13 I'm going to start by showing you the speed
09:57 14 part of it. How do you maintain the same speed when
09:57 15 you command it to keep going up, for example, at 5 feet
09:57 16 per minute?

09:57 17 And that speed part of it, this is the 4-axis
09:57 18 controller that we're pulling up on. So we're pulling
09:57 19 up on that in this direction inside the cockpit.

09:57 20 And when we do that, these are actually speed
09:57 21 commands. That ALT with a dot on top means how fast
09:57 22 you're going up and down.

09:57 23 And so you're actually measuring how fast
09:57 24 you're actually going up and down. You're comparing it
09:57 25 here to how fast you're commanding it to go up and

09:57 1 down, and then you're making adjustments to the actual
09:58 2 rotors of the helicopter so that if you're asking for 5
09:58 3 feet a minute, you're going to get 5 feet per minute.

09:58 4 Q. And is this showing a loop, a vertical speed
09:58 5 hold loop?

09:58 6 A. Yes.

09:58 7 Q. And that's Figure 5?

09:58 8 A. Yes.

09:58 9 Q. Does Figure 5 also show an altitude hold loop?

09:58 10 A. Absolutely.

09:58 11 Q. Can you describe that?

09:58 12 A. Sure.

09:58 13 When you let go of this controller, you don't
09:58 14 want to go up at 5 feet a minute anymore. You want it
09:58 15 to just lock in on the altitude it's at and stay there
09:58 16 so that, for instance, you can survey the ground, look
09:58 17 for whatever you're looking for.

09:58 18 And so when that happens, you're measuring the
09:58 19 altitude you're at and the altitude that you've
09:58 20 commanded, which is basically the altitude when you let
09:58 21 go of the controller.

09:58 22 You're comparing those two, figuring out the
09:58 23 error that's in the altitude you're supposed to be at
09:58 24 and the altitude you're actually at. And then, again,
09:58 25 you're commanding the helicopter so you can fix it.

09:58 1 So if you're at 800 feet and you're supposed
09:59 2 to be at 795 feet, it'll bring itself right down to 795
09:59 3 and stay there. And if there's a thermal blowing it
09:59 4 out of position, it's going to constantly compensate
09:59 5 for that and stay at 795.

09:59 6 Q. And that's when you let go of the controls?

09:59 7 A. Yes.

09:59 8 Q. What is your opinion with respect to whether
09:59 9 Gold renders obvious Claim 13?

09:59 10 A. I believe Gold does render obvious all of
09:59 11 Claim 13.

09:59 12 Q. Did Mr. Gold invent the control loops claimed
09:59 13 in Claim 13 prior to the '752 patent?

09:59 14 A. No. These control loops -- helicopter
09:59 15 autopilots have been around for decades. Control loops
09:59 16 are not new. Gold and the '752 patent are just talking
09:59 17 about how to turn them on and off when you let go of
09:59 18 the controls and push on the controls.

09:59 19 Q. I see. So the controllers predate even Gold?

09:59 20 A. Oh, yes.

09:59 21 Q. Did Gold disclose the specific control loops
10:00 22 claimed in Claim 13 of the '752 patent before the '752
10:00 23 patent was filed?

10:00 24 A. Yes.

10:00 25 Q. And is that why Gold renders obvious Claim 13

10:00 1 of the '752 patent?

10:00 2 A. Yes.

10:00 3 Q. And again, you're only opining whether one
10:00 4 claim in the '752 patent is invalid; is that correct?

10:00 5 A. That's right.

10:00 6 Q. And so if the jury agrees with your opinions
10:00 7 both on the '752 patent and the '909 patent, that
10:00 8 doesn't mean the entire patent's invalid?

10:00 9 A. Correct.

10:00 10 Q. And just as a reminder, the United States
10:00 11 government Patent Office, when they evaluated Claim 13
10:00 12 of the '752 patent, they never looked at Gold. They
10:00 13 didn't have Gold before it, did they?

10:00 14 A. Correct.

10:00 15 Q. So let's shift gears. We're on the last
10:00 16 questions finally.

10:00 17 Let's talk a little bit about the technical
10:00 18 value and potential alternative designs. Let's start
10:00 19 with the '909 patent.

10:00 20 Do you have an opinion on whether the -- what
10:00 21 the '909 patent's technical value is related to DJI
10:00 22 drones?

10:00 23 A. Yes. I do.

10:01 24 Q. What is that?

10:01 25 A. I believe the '909 patent does not have any

10:01 1 value for these drones.

10:01 2 Q. Why not?

10:01 3 A. Because what the '909 patent teaches isn't
10:01 4 necessary or useful to the way we fly these drones in
10:01 5 the real world.

10:01 6 Q. And you're talking about the RIV that was
10:01 7 described?

10:01 8 A. Yes. The relative inertial velocity mode.

10:01 9 Q. Was following an object new in the '909
10:01 10 patent?

10:01 11 A. No.

10:01 12 Q. Do you have an opinion with respect to the
10:01 13 '752 patent, whether that has any technical value to
10:01 14 the DJI drones?

10:01 15 A. For these drones that DJI builds and people
10:01 16 buy and use, I don't believe the '752 patent has any
10:01 17 technical value.

10:01 18 Q. Why not?

10:01 19 A. Because the things that the '752 patent is
10:01 20 about, while they're very applicable to this kind of
10:01 21 machine, I just don't think they apply. They have no
10:02 22 value for this kind of machine where I'm standing
10:02 23 outside here and controlling it.

10:02 24 Q. And you're differentiating between the
10:02 25 helicopter that's piloted by a pilot and a drone that's

10:02 1 not?

10:02 2 A. That's my example. Yes.

10:02 3 Q. And kind of like how the DJI drones with
10:02 4 Follow Me aren't about landing on a ship?

10:02 5 A. That's right.

10:02 6 Q. Were you asked to consider if there were any
10:02 7 alternative designs that were available for the '909
10:02 8 and '752 patents?

10:02 9 A. I was.

10:02 10 Q. Did you identify any?

10:02 11 A. I did.

10:02 12 Q. Let's start with the '909 patent.

10:02 13 What alternative design did you identify?

10:02 14 A. Well, I thought about this last element,
10:02 15 "wherein the commanded data is preprogrammed into the
10:02 16 control system prior to flight of the aircraft,"
10:02 17 because Textron has the contention that we're doing
10:02 18 this with the DJI drones -- not we, that DJI is doing
10:03 19 this with their drones.

10:03 20 And so there's a nice alternative design.

10:03 21 Because when I use Follow Me or ActiveTrack with these
10:03 22 drones, I take off first, right? I take off, angle it
10:03 23 toward me so that I can make sure I get a good picture
10:03 24 of me when I'm walking around in Follow Me mode or when
10:03 25 it's following my son on his mountain bike in

10:03 1 ActiveTrack mode.

10:03 2 So the change I could make to the interface
10:03 3 would be at that moment when I say, yeah. I want to
10:03 4 start Follow Me or I want to start ActiveTrack. It can
10:03 5 show this box -- I've drawn a really crude-looking box,
10:03 6 but graphic designers can make it pretty -- inside
10:03 7 here. Right here. Like a little box here.

10:03 8 And what that box would have on it is, it
10:03 9 would let me choose if I want to even have commanded
10:03 10 relative velocity. I could push on that velocity
10:03 11 button and decide how fast I want the drone to get
10:03 12 closer or further away from me as I walk.

10:04 13 So if I just added that box, then I'd actually
10:04 14 have commanded relative velocity and I'd have it on my
10:04 15 interface, and it wouldn't be prior to flight because
10:04 16 I'm clearly using it while I'm flying.

10:04 17 Q. And was this alternative something DJI could
10:04 18 have done at the time it released Follow Me or
10:04 19 ActiveTrack?

10:04 20 A. Certainly.

10:04 21 Q. How do you know that?

10:04 22 A. Because they had programmers and graphic
10:04 23 designers that created this interface. And with my
10:04 24 software understanding and skills, I know they could
10:04 25 have easily added this additional complexity to the

10:04 1 screen.

10:04 2 Q. So you believe DJI was capable of implementing
10:04 3 this at that time?

10:04 4 A. Yes.

10:04 5 Q. Would this alternative design have infringed
10:04 6 the asserted claims of the '909 patent?

10:04 7 A. No. It can't.

10:04 8 Q. Why not?

10:04 9 A. Because it doesn't practice this element.
10:04 10 It's kind of designed to not practice this element.

10:04 11 Q. Do you believe this alternative design would
10:04 12 have been acceptable to consumers?

10:04 13 A. Sure.

10:04 14 Q. Why?

10:04 15 A. Because it gives them all the functionality
10:04 16 they have now, in addition to the ability to close in
10:04 17 on them or get further away from them.

10:05 18 Q. Did you identify any other alternative designs
10:05 19 for the '909 patent?

10:05 20 A. Yes.

10:05 21 Q. What is that?

10:05 22 A. Well, the other idea that I came up with was
10:05 23 when you're flying that drone and you got your phone up
10:05 24 here and you're going to do ActiveTrack, let's say, as
10:05 25 an example, when you position it and it's got a good

10:05 1 view of you, you could just tell it to start tracking
10:05 2 you and following you around by just touching your
10:05 3 picture on the screen of the phone.

10:05 4 And if you just touch your picture with your
10:05 5 finger, it could just use that to then do computer
10:05 6 vision, figure out, oh, I'm following Illah, and then
10:05 7 it could follow Illah around.

10:05 8 Q. So you mean touching it without any bounding
10:05 9 box?

10:05 10 A. That's right. You just put your finger on the
10:05 11 object you want to follow like the dog or the human
10:05 12 being.

10:05 13 Q. And is this something that would have been
10:05 14 available to DJI at the time that it released Follow Me
10:05 15 or ActiveTrack?

10:06 16 A. Sure.

10:06 17 Q. Do you think DJI was capable of implementing
10:06 18 that?

10:06 19 A. Yes.

10:06 20 Q. Do you believe this alternative is acceptable
10:06 21 to consumers?

10:06 22 A. Sure. It's convenient.

10:06 23 Q. And would this alternative infringe the
10:06 24 asserted claims of the '909 patent?

10:06 25 A. No.

10:06 1 Q. Why is that?

10:06 2 A. Because you're not sending any position data
10:06 3 or any movement data, ever.

10:06 4 Q. And for both of these alternatives, for the
10:06 5 '909 patent, about how much engineering time would it
10:06 6 take to implement either one?

10:06 7 A. It's a rough guess, but about one month of an
10:06 8 engineer's time.

10:06 9 Q. Is that one month per alternative design?

10:06 10 A. Yes.

10:06 11 Q. Did you come up with any alternatives for the
10:06 12 '752 patent?

10:06 13 A. I did.

10:06 14 Q. What is that?

10:06 15 A. The brake pedal and the parking brake
10:06 16 metaphor. So I'll explain them to y'all.

10:06 17 In these drones we have right now, you're
10:06 18 flying along by pushing on this, and when you let go,
10:07 19 it slows down and stops, and then it does a position
10:07 20 hold. It stays in position. And if for some reason
10:07 21 DJI were to say that all infringes by some argument
10:07 22 they're making --

10:07 23 Q. Do you mean Textron?

10:07 24 A. I'm sorry. Yes. Textron says that that all
10:07 25 infringes by some argument they make, there's two real

10:07 1 simple changes that are both alternatives that would
10:07 2 work, I think, great.

10:07 3 One of them is, like, having a brake pedal.
10:07 4 So you could have it so when you push on this
10:07 5 controller, the DJI drone starts going. And when you
10:07 6 let go, instead of slowing down rapidly and stopping,
10:07 7 it coasts just like your car coasts when you stop
10:07 8 pushing on the accelerator pedal.

10:07 9 And if you want to stop coasting, you just
10:07 10 push this button. It's a brake pedal. You push on the
10:07 11 button, it slows down. That's the brake pedal idea.

10:07 12 Another idea for noninfringing that also
10:07 13 avoids this whole thing is, like, a parking brake. So
10:07 14 you push on this, and the drone starts going real fast.
10:08 15 You let go, it could slow down and start hovering, but
10:08 16 it doesn't position hold. It just hovers around. And
10:08 17 if you push on it, it won't come back. It'll just stay
10:08 18 wherever it is.

10:08 19 You push a button to turn on the parking
10:08 20 brake, and then it just stays put so that -- you could
10:08 21 have a brake pedal or you could have a parking brake,
10:08 22 and either way you've avoided this issue.

10:08 23 Q. And why have you avoided this issue -- why
10:08 24 would they not infringe?

10:08 25 A. Because it's never actually doing speed hold

10:08 1 when you let go of this stick. It's just coasting.

10:08 2 Q. And what about the parking brake example?

10:08 3 A. It's not ever going to a different mode that
10:08 4 it has to re-engage out of because it's just speed
10:08 5 holding the whole time until you hit the parking brake
10:08 6 and it comes out of that.

10:08 7 Q. And you've been clicking buttons on an
10:08 8 existing DJI remote; is that right?

10:08 9 A. I have. These have so many buttons on them
10:08 10 that I rarely use. I think it'd be easy to re-use one
10:09 11 of these buttons for a brake pedal or a parking brake.

10:09 12 Q. And these examples that you've given as
10:09 13 alternative designs for the '752 patent, would those
10:09 14 have been available at the time that Textron claims DJI
10:09 15 first infringed?

10:09 16 A. Yes.

10:09 17 Q. How do you know that?

10:09 18 A. Because I've looked at the code, and I know
10:09 19 the complexity of implementing something like this.
10:09 20 It's very simple to do in the code -- in the software
10:09 21 as is.

10:09 22 Q. And do you believe DJI had that capability at
10:09 23 the time?

10:09 24 A. Certainly.

10:09 25 Q. Do you believe these alternative designs would

10:09 1 be acceptable to consumers?

10:09 2 A. Yes. It's how I drive my car.

10:09 3 Q. And I think you already answered that these
10:09 4 designs wouldn't infringe the claims?

10:09 5 A. No.

10:09 6 Q. The asserted Claim 13?

10:09 7 A. No. They would not infringe Claim 13.

10:09 8 Q. And about how much engineering time would it
10:09 9 take to implement these designs?

10:09 10 A. I'm sorry they're the same rough guesses, but
10:09 11 about a month for each one.

10:09 12 Q. Have you ever seen a brake button on a DJI
10:09 13 remote?

10:09 14 A. Yes. I have.

10:09 15 Q. And that's a remote that's currently sold?

10:10 16 A. Yes. It's one of their newest machines,
10:10 17 actually has a brake button.

10:10 18 Q. Have you flown that?

10:10 19 A. I have flown it.

10:10 20 Q. Did it work?

10:10 21 A. It's fast. And the brake works real well too.

10:10 22 Q. Could you please summarize your opinions -- or
10:10 23 let's start with the first one.

10:10 24 What's your opinion on whether DJI infringes
10:10 25 any of the asserted claims of the '909 and '752

10:10 1 patents?

10:10 2 A. This was from yesterday. But my opinion is
10:10 3 that DJI does not infringe the four claims that are
10:10 4 asserted in '909 patent, and it also doesn't infringe
10:10 5 the one claim from the '752 patent.

10:10 6 Q. And what -- can you summarize your opinion on
10:10 7 whether the asserted claims of the '909 patent and
10:10 8 '752 -- and that the Claim 13 of the '752 patent are
10:10 9 valid?

10:10 10 A. My opinion is that those four claims in the
10:10 11 '909 patent and the one claim in '752 are not valid.
10:10 12 They're invalid.

10:10 13 Q. We just went over your opinions on the
10:10 14 technical value and alternatives. So I don't think we
10:11 15 need to summarize those.

10:11 16 But just to summarize in general, the '909
10:11 17 patent, that was about using velocity to follow another
10:11 18 object, the arrows in a boat; is that right?

10:11 19 A. Yes. Relative velocity is what it's all
10:11 20 about.

10:11 21 Q. And DJI, they use position, not velocity; is
10:11 22 that right?

10:11 23 A. Correct.

10:11 24 Q. Now, the Claim 13, that's also about velocity;
10:11 25 is that right?

10:11 1 A. Yeah. It's all about velocity in a way.

10:11 2 Q. But we -- does DJI use velocity when it's
10:11 3 holding a position?

10:11 4 A. No. When it's staying put like I showed in
10:11 5 the courtroom, you can pull it away and it'll go right
10:11 6 back down to the same position. So the idea that it's
10:11 7 holding zero velocity is just not true.

10:11 8 Q. So in your opinion, is DJI using what's
10:11 9 claimed by Textron in the '909 and '752 patents for the
10:11 10 asserted claims?

10:11 11 A. No.

10:11 12 Q. Have you looked at whether DJI itself has any
10:12 13 patents?

10:12 14 A. I have.

10:12 15 Q. How many patents did you -- or patent or
10:12 16 patent applications worldwide did you discover DJI has?

10:12 17 A. I know this number sounds crazy. I went on
10:12 18 Google patent search and used it to search for patents
10:12 19 that DJI owns, and I was so surprised at the number, I
10:12 20 went back to the United States patent trademark search
10:12 21 site and did the same thing again and went back and
10:12 22 forth. But I got nearly 40,000 patents -- patent
10:12 23 applications that DJI has around the world.

10:12 24 Q. What about patents with respect to
10:12 25 tracking-type features like Follow Me?

10:12 1 A. Well, one of the nice things you can do when
10:12 2 you do a patent search on the Internet is you can say I
10:12 3 want to find only patents that have these words in
10:12 4 them. So I looked up words like "tracking" and I still
10:12 5 got 2,000 patents that DJI has applied for or has
10:12 6 around the world just on tracking.

10:12 7 Q. And what about hovering? Does DJI have any
10:12 8 patents on hovering?

10:12 9 A. I searched on the word "hovering" in the
10:13 10 patent database, and DJI has 1,600 patents that are
10:13 11 about hovering.

10:13 12 MR. SCHLESINGER: I pass the witness,
10:13 13 Your Honor.

10:13 14 CROSS-EXAMINATION

10:13 15 BY MR. RICH:

10:13 16 Q. Good morning, Dr. Nourbakhsh.

10:13 17 A. Good morning, sir.

10:13 18 Q. You and I met in Pittsburgh a few months back
10:13 19 when I flew up to take your deposition, didn't we?

10:13 20 A. That's exactly right.

10:13 21 Q. Good to see you again, Doctor.

10:13 22 A. Good to see you too.

10:13 23 Q. Now, you just talked about how DJI has nearly
10:13 24 40,000 patents, applications and publications, didn't
10:13 25 you?

10:13 1 A. I did.

10:13 2 Q. Out of those 40,000 patents and applications,
10:13 3 you didn't identify a single one as invalidating the
10:13 4 '909 patent, did you?

10:13 5 A. I didn't use them for that purpose, no.

10:14 6 Q. Sir, you didn't identify a single one that
10:14 7 invalidates the '909 patent?

10:14 8 A. That's correct.

10:14 9 Q. And out of those 40,000 patents and
10:14 10 applications, you didn't identify a single one as
10:14 11 invalidating the '752 patent, right?

10:14 12 A. That's correct.

10:14 13 Q. Exactly zero of DJI's 40,000 patents and
10:14 14 applications are ones that you say invalidate Textron's
10:14 15 patents?

10:14 16 A. That's right. I didn't look at them that way.

10:14 17 Q. And you're not relying on any DJI products or
10:14 18 development to say that the jury should invalidate
10:14 19 Textron's patents?

10:14 20 A. That's right.

10:14 21 Q. Instead you're using the Frink reference and
10:14 22 the Gold reference, but those guys have nothing to do
10:14 23 with DJI, right?

10:14 24 A. Exactly.

10:14 25 Q. And so you're not saying to the jury that they

10:14 1 should take away Mr. Harris' and Mr. Christensen's
10:14 2 patents because DJI came up with the ideas first,
10:14 3 correct?

10:14 4 A. Correct.

10:14 5 Q. You're also not saying to the jury that DJI
10:14 6 doesn't infringe Textron's patents just because they
10:14 7 have their own patents, right?

10:15 8 A. That's not the reason they don't infringe, no.

10:15 9 Q. And you're not saying that just because DJI
10:15 10 has patents, they don't infringe Textron's patents.
10:15 11 That wouldn't be the right analysis, right?

10:15 12 A. Correct.

10:15 13 Q. Let's say you moved on down from Pittsburgh
10:15 14 and bought a house next door to me in Dallas, okay?

10:15 15 A. Sure.

10:15 16 Q. You and I each own our own properties, right?

10:15 17 A. Absolutely.

10:15 18 Q. Just because you own your own house does not
10:15 19 mean you can come and trespass on my property, right?

10:15 20 A. I definitely wouldn't.

10:15 21 MR. RICH: May I have Dr. Nourbakhsh's
10:15 22 Slide 3?

10:15 23 BY MR. RICH:

10:16 24 Q. Dr. Nourbakhsh, you remember putting up this
10:16 25 slide in the start of your examination, right?

10:16 1 A. Yes.

10:16 2 Q. You're not here working for NASA, are you?

10:16 3 A. No. I'm retired. I'm a retired civil

10:16 4 servant.

10:16 5 Q. You're not here working for the Jet Propulsion

10:16 6 Laboratory?

10:16 7 A. No.

10:16 8 Q. And you're not here working for Carnegie

10:16 9 Mellon, are you?

10:16 10 A. No. I was hired to do this job even though

10:16 11 I'm a professor at Carnegie Mellon.

10:16 12 Q. But you're not here on behalf of Carnegie

10:16 13 Mellon, right?

10:16 14 A. No. I speak just for myself.

10:16 15 Q. You're actually here as part of your own

10:16 16 separate business as an expert, correct?

10:16 17 A. Yes.

10:16 18 Q. And you've worked on -- as an expert witness

10:16 19 in about four patent cases, right?

10:16 20 A. That's about right, plus or minus.

10:16 21 Q. When you were talking about your work history,

10:16 22 you didn't tell the jury that a significant part of

10:17 23 your work as an expert witness has been working for DJI

10:17 24 when DJI gets sued for patent infringement?

10:17 25 A. I don't know if the word "significant" is

10:17 1 right. I've worked with DJI and many other people.

10:17 2 I've worked with Finnegan on other cases too.

10:17 3 Finnegan is the name of the law firm that's
10:17 4 representing DJI here.

10:17 5 Q. Finnegan is one of your clients, right?

10:17 6 A. That's right.

10:17 7 Q. The law firm that's representing DJI?

10:17 8 A. Yes.

10:17 9 Q. And you've served as an expert on three
10:17 10 separate cases for DJI, correct?

10:17 11 A. I think that's the right number. Three.

10:17 12 Q. You have not served as an expert for anyone
10:17 13 other than DJI in the past year?

10:17 14 A. In the past year, this is the only case I've
10:17 15 been working on, I think.

10:17 16 Q. And so it's correct, the only person that
10:17 17 you've worked -- the only company that you've worked
10:17 18 for as an expert in the past year has been DJI?

10:17 19 A. That definitely is true.

10:17 20 Q. In each of those three cases where you were
10:17 21 DJI's expert, DJI had been sued for patent
10:17 22 infringement, correct?

10:17 23 A. They get sued a lot.

10:18 24 Q. They get sued a lot?

10:18 25 A. Yes.

10:18 1 Q. In each of these three cases where you were
10:18 2 DJI's expert, you opined that either DJI did not
10:18 3 infringe the patents or that the patents asserted
10:18 4 against DJI were invalid, right?

10:18 5 A. That's right.

10:18 6 Q. Just like you're doing again here in this
10:18 7 case?

10:18 8 A. Yes.

10:18 9 Q. For DJI?

10:18 10 A. Yes.

10:18 11 Q. You've actually never rendered an opinion
10:18 12 against DJI?

10:18 13 A. That's right. I've never been hired by
10:18 14 somebody to show how DJI is being a bad party to them.

10:18 15 Q. You've never opined that DJI infringes a
10:18 16 patent, have you?

10:18 17 A. No.

10:18 18 Q. You've never opined that a patent asserted
10:18 19 against DJI is valid?

10:18 20 A. I don't remember that.

10:18 21 Q. You told the jury that you have some of your
10:18 22 own patents, right?

10:18 23 A. I do.

10:18 24 Q. You've never taken the position that one of
10:18 25 your own patents is invalid, right?

10:19 1 A. Can you ask that again?

10:19 2 Q. You haven't taken the position that one of
10:19 3 your own patents is invalid, correct?

10:19 4 A. My own patent is invalid?

10:19 5 Q. Correct.

10:19 6 A. No. I've never sued myself or anything like
10:19 7 that.

10:19 8 Q. And so you spend a significant part of your
10:19 9 expert time trying to invalidate other people's patents
10:19 10 but not your own?

10:19 11 A. No. I spend a significant part of my expert
10:19 12 time trying to defend people to make sure that justice
10:19 13 has truth.

10:19 14 Q. Sir, I noticed you kept saying in your
10:19 15 examination that "we don't infringe."

10:19 16 A. I did try and correct myself when I did that.

10:19 17 Q. In fact, I did a word search on your
10:19 18 transcript from last night, you said "we" 34 times.

10:19 19 A. Okay.

10:19 20 Q. You wouldn't be surprised by that, right?

10:19 21 A. I had -- didn't count.

10:19 22 Q. You're supposed to be an independent expert in
10:19 23 this case, right?

10:19 24 A. I'm an independent expert hired by a
10:19 25 particular law firm, just like Dr. Michalson.

10:19 1 Q. Now, you said -- just said that DJI does not
10:19 2 infringe -- sorry. Let me strike that.

10:20 3 Do you view yourself as part of DJI?

10:20 4 A. No.

10:20 5 Q. But DJI has paid you pretty handsomely,
10:20 6 haven't they?

10:20 7 A. Well, I charge Finnegan, the law firm. My
10:20 8 relationship is with them.

10:20 9 Q. And is Finnegan paying you?

10:20 10 A. Yes.

10:20 11 Q. Is DJI paying you?

10:20 12 A. I get paid by Finnegan. I give them invoices,
10:20 13 and then they pay me. I'm sure that they're collecting
10:20 14 the money from DJI to pay me. That must be how it's
10:20 15 happening.

10:20 16 Q. Right. DJI is paying you \$850 every hour you
10:20 17 work on this case, right?

10:20 18 A. Yes.

10:20 19 Q. At least as of January of this year, you
10:20 20 already had billed between 200 and 500 hours in this
10:20 21 case, right?

10:20 22 A. Approximately. Yes.

10:20 23 Q. And since January, you've probably billed
10:20 24 another 200 hours to DJI for this case, right?

10:20 25 A. I think that's a fine estimate.

10:20 1 Q. And so taking the high end, you've billed DJI
10:20 2 about 700 hours on this case alone, right?

10:20 3 A. That sounds high. I think it's probably
10:21 4 closer to 4 or 500.

10:21 5 Q. Well, you gave me an estimate of 2 to
10:21 6 500 hours, right?

10:21 7 A. Just sounds like a lot of hours. I have to
10:21 8 fit this in with all my teaching and all the
10:21 9 responsibilities at the university.

10:21 10 Q. Sir, you said 200 to 500 hours as of January,
10:21 11 didn't you?

10:21 12 A. Okay.

10:21 13 Q. And if I take the 500 hours and I add another
10:21 14 200 hours, that's 700 hours?

10:21 15 A. I'm just saying, you're taking the high end.
10:21 16 It's a real high number, 500 compared to 200.

10:21 17 Q. Okay. Well, those are your words, right?

10:21 18 A. Yeah.

10:21 19 Q. And so if you take 700 hours times 850 every
10:21 20 hour, that comes out to \$595,000, correct?

10:21 21 A. It does come out to that number.

10:21 22 Q. And you billed about 200 to 500 hours in the
10:21 23 last case where you were DJI's noninfringement and
10:21 24 invalidity expert, correct?

10:21 25 A. I don't remember, but I'm sure you've looked

10:21 1 it up and done your homework, sir.

10:21 2 Q. You're right. I did.

10:21 3 And that's another \$425,000 on the upper end
10:22 4 of your own words for your hours worked.

10:22 5 That wouldn't surprise you, right?

10:22 6 A. The numbers are huge so they kind of surprise
10:22 7 me. Because I'm pretty sure I have not gotten paid
10:22 8 half a million dollars in this case, but you're doing
10:22 9 the math at these high ends.

10:22 10 Q. Well, you gave me the estimate, sir.

10:22 11 A. Okay.

10:22 12 Q. And just factoring in this case and the last
10:22 13 case where DJI got sued for infringement, taking your
10:22 14 own hours' estimates, DJI's paid you about a million
10:22 15 bucks to be its expert?

10:22 16 A. You're taking high estimates. I've never
10:22 17 gotten that much money from consulting altogether. So
10:22 18 I just disagree with you, but I get what you're doing.
10:22 19 You're taking the high end and multiplying. I get it.

10:22 20 Q. And this doesn't even factor the third case
10:22 21 that we didn't even talk about, right?

10:22 22 A. Sure.

10:22 23 Q. And you make about \$200,000 in your normal day
10:22 24 job as a professor?

10:22 25 A. That's right.

10:22 1 Q. And so DJI's paid you roughly five times your
10:23 2 normal salary as a professor?

10:23 3 A. I get paid as a professor every year. These
10:23 4 cases are just once in a while when I have time to do a
10:23 5 case. That's why I only have one this year because I
10:23 6 can't imagine doing two of these at one time.

10:23 7 Q. Sir, if you add up the numbers, DJI's paid you
10:23 8 about five times what you make in a year as a
10:23 9 professor, right?

10:23 10 A. What I make -- okay. DJI, over the course of
10:23 11 many years, has paid me more than I make in one year as
10:23 12 a professor. Yes.

10:23 13 Q. Right.

10:23 14 Over the course of your many-year relationship
10:23 15 saying that DJI doesn't infringe patents, correct?

10:23 16 A. Correct. Of course I've done other cases that
10:23 17 aren't with DJI too.

10:23 18 Q. Now, you told the jury yesterday that you
10:23 19 teach an ethics class, right?

10:23 20 A. Yes. I do.

10:23 21 Q. As part of your teaching, you won't accept
10:23 22 funding from the United States Department of Defense,
10:23 23 correct?

10:23 24 A. No. As part of my teaching, I teach my
10:23 25 students to think about the social consequences of what

10:23 1 careers they choose.

10:23 2 And I have many students who've become
10:24 3 outstanding members of the military, and I've had many
10:24 4 students become outstanding members outside the
10:24 5 military. I teach both sides.

10:24 6 MR. RICH: Objection, nonresponsive.

10:24 7 THE COURT: Sustained.

10:24 8 BY MR. RICH:

10:24 9 Q. Sir, you won't accept funding from the United
10:24 10 States Department of Defense, right?

10:24 11 A. To the CREATE Lab, correct.

10:24 12 Q. But you've been paid about a million bucks by
10:24 13 a company that the Department of Defense has identified
10:24 14 as a Chinese military company?

10:24 15 A. They have.

10:24 16 Q. You submitted some reports in this case,
10:24 17 correct, sir?

10:24 18 A. Yes.

10:24 19 Q. They were fairly voluminous, right?

10:24 20 A. They were long.

10:24 21 Q. You tried to focus on things that you thought
10:24 22 were relevant to answering questions the jury has to
10:24 23 answer, right?

10:24 24 A. Sure.

10:24 25 Q. You reviewed depositions from folks at DJI

10:24 1 that you thought would be important enough to reference
10:24 2 in your report?

10:24 3 A. Yes.

10:24 4 Q. Loki Zhang's deposition, right?

10:24 5 A. Yes.

10:24 6 Q. Gavin Chen's?

10:25 7 A. Yes.

10:25 8 Q. Zhimeng Shang's?

10:25 9 A. That's right.

10:25 10 Q. Litian Zhang's?

10:25 11 A. Yes.

10:25 12 Q. Chuyue Ai's?

10:25 13 A. Yes.

10:25 14 Q. Those are all DJI employees who you reviewed
10:25 15 their depositions, right?

10:25 16 A. I believe so.

10:25 17 Q. But not a single one of those people is going
10:25 18 to come into this courtroom and take the stand and let
10:25 19 us ask them questions, correct?

10:25 20 A. I'm not aware of the machinations of that. I
10:25 21 know they played their witness testimony on the
10:25 22 computer.

10:25 23 Q. You've been in the courtroom all week. I've
10:25 24 seen you back there, right?

10:25 25 A. I have been here the whole time.

10:25 1 Q. And you haven't seen a single one of those
10:25 2 guys come into the courtroom and take the stand, right?

10:25 3 A. Not live.

10:25 4 Q. Now, you talked about the video depositions.
10:25 5 A video deposition is much different than sitting
10:25 6 across from the jury on that witness stand, isn't it?

10:25 7 A. Yeah. This is, I think, more interesting.

10:25 8 Q. When you're on the stand, the jury gets to
10:26 9 watch mannerisms. They get to watch witnesses raise
10:26 10 their voice. They get to look at the witnesses in the
10:26 11 eyes, right?

10:26 12 A. Yes.

10:26 13 Q. There's something about watching someone
10:26 14 testify live versus reading their deposition on paper
10:26 15 or watching it on video, isn't there?

10:26 16 A. Yes.

10:26 17 Q. Now, you also mentioned DJI's founder,
10:26 18 Frank Wang, in your direct examination.

10:26 19 Do you remember that?

10:26 20 A. No.

10:26 21 Q. You don't remember talking about Frank Wang
10:26 22 and DJI's founding?

10:26 23 A. I don't remember that part of the direct. I'm
10:26 24 sorry.

10:26 25 Q. You were in here for Mr. Oushana's

10:26 1 examination, weren't you?

10:26 2 A. Yes.

10:26 3 Q. And you heard him talk about Mr. Wang, right?

10:26 4 A. Yes.

10:26 5 Q. He's the guy that cuts your checks, right?

10:26 6 A. I've explained, sir, that Finnegan cuts my
10:26 7 checks.

10:26 8 Q. From Mr. Wang, right?

10:26 9 A. I don't know how -- I don't know how they get
10:26 10 paid, in lump sums or monthly or whatnot. I have no
10:27 11 idea how that works.

10:27 12 Q. Now, you've heard his name multiple times from
10:27 13 DJI in this courtroom, right?

10:27 14 A. Yes.

10:27 15 Q. But when we talked, you couldn't even remember
10:27 16 his name, right?

10:27 17 A. I'm sorry. When?

10:27 18 Q. When we talked in January, you couldn't
10:27 19 remember his name.

10:27 20 A. No. I didn't know the name of the founder of
10:27 21 that company.

10:27 22 Q. And you've never talked to Mr. Wang, right?

10:27 23 A. No.

10:27 24 Q. You didn't get to review his deposition
10:27 25 transcript in this case, did you?

10:27 1 A. No.

10:27 2 Q. That's because DJI did not make him a witness
10:27 3 in this case, correct?

10:27 4 A. I don't know the -- I don't know the legal
10:27 5 decisions.

10:27 6 Q. I wasn't asking about legal decisions.
10:27 7 You didn't review any deposition testimony
10:27 8 from Mr. Wang?

10:27 9 A. Correct.

10:27 10 Q. And he didn't bother to show up in this
10:27 11 courtroom this week to let us ask him questions, did
10:27 12 he?

10:27 13 A. I don't think he's here.

10:27 14 Q. Even when his company is facing \$367 million
10:28 15 in infringement damages for his products, he didn't
10:28 16 show up, right?

10:28 17 A. Right. I haven't seen him here.

10:28 18 Q. Now, just before we came in here today, I
10:28 19 checked how much flights cost from Shenzhen to Dallas,
10:28 20 okay?

10:28 21 A. Sure.

10:28 22 Q. 2,500 bucks. Right? I'll tell you, it was
10:28 23 2,500 bucks. Not much for a drone billionaire to get
10:28 24 here, right?

10:28 25 A. You know, whenever I think of these chief

10:28 1 executives and people, I think their time is the thing
10:28 2 that's super valuable, not the flight costs.

10:28 3 Q. But you wouldn't know because you didn't talk
10:28 4 to Mr. Wang, right?

10:28 5 A. I haven't talked to him in my life.

10:28 6 Q. Neither have I.

10:28 7 And the fact that Mr. Wang did not bother to
10:28 8 show up for cross-examination, did not stop DJI from
10:28 9 cross-examining all the folks from Textron that took
10:28 10 that stand, did it?

10:28 11 A. No. DJI -- I'm sorry. Finnegan
10:29 12 cross-examined people here, yes.

10:29 13 Q. Right. And the fact that Mr. Wang didn't show
10:29 14 up, didn't stop them from crossing the folks from
10:29 15 Textron that showed up?

10:29 16 A. I think that's why they showed up.

10:29 17 Q. Sir, you have kids, right?

10:29 18 A. I do.

10:29 19 Q. They grow up fast, don't they?

10:29 20 A. At first, real slow, then gradually faster the
10:29 21 older they get, I think.

10:29 22 Q. Right. I've got three kids; two girls and a
10:29 23 boy, all right?

10:29 24 A. Sure.

10:29 25 Q. My boy is eight, and he loves to play

10:29 1 baseball, all right? Sometimes he's out in the yard
10:29 2 throwing a bit wild. Hasn't happened yet, but you can
10:29 3 imagine that if he threw the ball and it broke the
10:29 4 neighbor's window, I'd hope he'd come tell me, right?

10:29 5 A. Yes.

10:29 6 Q. You teach your kids stuff like that, right?

10:29 7 A. I've had that specific issue with the soccer
10:29 8 ball, actually.

10:29 9 Q. Right. It happens sometimes, right?

10:29 10 One of the books that you flashed up on your
10:29 11 slides was a book about parenting, right?

10:29 12 A. Yes.

10:29 13 Q. If something like that happened, would you go
10:30 14 over to the neighbor's house and apologize for your kid
10:30 15 or would you say, son, you did it. You're going to
10:30 16 have to go over to the neighbor's house and apologize?

10:30 17 A. Actually, I had my son mend the fence that he
10:30 18 broke with the soccer ball. So I taught him how to
10:30 19 mend it with carpentry because I woodwork, and then I
10:30 20 had him go and do it.

10:30 21 Q. Right. You'd make him face the music, right?

10:30 22 A. Yes. But I also -- he was shy so I also
10:30 23 helped him go and apologize in person, but I wanted him
10:30 24 to fix the fence first.

10:30 25 Q. But the simple lesson that we teach our kids,

10:30 1 to show up and take responsibility, is apparently not
10:30 2 something that DJI's founder knows, correct?

10:30 3 A. That's such a loaded question, I can't agree
10:30 4 with it.

10:30 5 Q. Now, you understand that there are transcripts
10:30 6 generated every single day we're in here showing what's
10:30 7 happening, right?

10:30 8 A. Yes.

10:30 9 Q. Ms. Davis is up there working hard, taking
10:30 10 down every word that's said, right?

10:31 11 A. I can see it happening.

10:31 12 Q. And we all get the transcripts. I don't know
10:31 13 if you know this. We get them every day after work,
10:31 14 okay?

10:31 15 A. Okay.

10:31 16 Q. And the transcripts are available if you want
10:31 17 to review them, okay?

10:31 18 A. I didn't know that.

10:31 19 Q. And so all those transcripts get e-mailed
10:31 20 around. We all look at them, and we might ask a
10:31 21 witness a question about some of the testimony that
10:31 22 happened the last day. You've seen that happen,
10:31 23 actually, in this courtroom, right?

10:31 24 A. Yes.

10:31 25 Q. You think these daily transcripts are getting

10:31 1 sent over to Mr. Wang back in China?

10:31 2 A. I have no idea what's private or public in a
10:31 3 courtroom like this.

10:31 4 Q. You think he's going to read your direct
10:31 5 examination and say, look at this. Our guy,
10:31 6 Dr. Nourbakhsh, got us out of another one?

10:31 7 A. I don't appreciate that tone, sir. I mean,
10:31 8 I'm doing my best to find truth. I've been hired to be
10:32 9 an expert just like Dr. Michalson.

10:32 10 Q. He's probably not going to be laughing when he
10:32 11 gets to this part of the transcript, is he?

10:32 12 A. Same answer.

10:32 13 Q. Now, Textron's patents in this case relate to
10:32 14 flight control technology, right?

10:32 15 A. That's a very general term, but I think it's
10:32 16 fine.

10:32 17 Q. Now, let's talk about the patents that you
10:32 18 flashed up on the screen that are your own patents,
10:32 19 okay?

10:32 20 A. Sure.

10:32 21 Q. Now, your patents relate to a wide range of
10:32 22 technologies, right?

10:32 23 A. Yes.

10:32 24 Q. Scheduling systems, correct?

10:32 25 A. Sure.

10:32 1 Q. A leg design for hopping, running and walking,
10:32 2 right?

10:32 3 A. Yeah. It's for a very special kind of pogo
10:32 4 stick.

10:32 5 Q. Air quality sensors?

10:32 6 A. Yes.

10:32 7 Q. Exactly zero of your own patents mentions
10:32 8 flight control, right?

10:32 9 A. That's right.

10:32 10 Q. Have you ever seen the patent video that the
10:33 11 jurors saw?

10:33 12 A. No.

10:33 13 Q. Well, it talks about how claims are sort of
10:33 14 like the deed to your property, right?

10:33 15 A. Okay.

10:33 16 Q. Okay?

10:33 17 Your deed defines the metes and bounds of your
10:33 18 property lines, okay?

10:33 19 A. Okay.

10:33 20 Q. And the deed says what it says, right?

10:33 21 A. Yes.

10:33 22 Q. You can't go over to your neighbor's house and
10:33 23 take a red pen to their deed to make their property
10:33 24 boundaries smaller, can you?

10:33 25 A. Correct.

10:33 1 Q. Just like the words of your deed matter, the
10:33 2 words of a claim matter, right?

10:33 3 A. Yes.

10:33 4 Q. I think you said it multiple times yesterday
10:33 5 that words matter, right?

10:33 6 A. I did.

10:33 7 Q. One of the reasons that you say DJI doesn't
10:33 8 infringe Claim 13 of the '752 patent is that you say
10:33 9 the claim requires the aircraft to have an onboard
10:33 10 controller, right?

10:33 11 A. That's -- the language is not that, but the
10:34 12 language is that the aircraft has, and then those four
10:34 13 controllers we talked about, yeah.

10:34 14 Q. Right. And you depicted an aircraft -- a
10:34 15 helicopter and said that the controllers were onboard
10:34 16 the helicopter, right?

10:34 17 A. You're adding the word "onboard." I said the
10:34 18 "having" word in the claim says that the aircraft has
10:34 19 these. So I showed a picture of a helicopter because
10:34 20 it has those controllers. It's the verb "have to
10:34 21 have."

10:34 22 Q. Can we have Slide 25 from Dr. Michalson's
10:34 23 (sic) demonstratives?

10:34 24 Your opinion is that the claim in this case is
10:34 25 limited to a manned rotary aircraft; is that not right?

10:34 1 A. No. You're adding words to the claim. We
10:34 2 just said the words matter. You're adding words that I
10:34 3 never added to the claim.

10:34 4 Q. So the claim is broad enough to cover an
10:34 5 unmanned rotary aircraft?

10:34 6 A. It doesn't say whether it's manned or unmanned
10:34 7 at all. It just says the aircraft has a longitudinal
10:35 8 controller, et cetera.

10:35 9 Q. Sir, is the claim limited to a manned rotary
10:35 10 aircraft?

10:35 11 A. No. There's no word "manned" in the claim.

10:35 12 Q. Right. It's broad enough to cover manned or
10:35 13 unmanned, isn't it?

10:35 14 A. It's not about being manned or unmanned. Its
10:35 15 narrowness is defined by how it says the "rotary
10:35 16 aircraft having" and then the stuff after having.

10:35 17 MR. RICH: Objection, nonresponsive.

18 THE COURT: Sustained.

10:35 19 BY MR. RICH:

10:35 20 Q. Sir, the claim is not -- strike that.

10:35 21 Rotary aircraft encompasses both UAVs and
10:35 22 manned aircraft, correct?

10:35 23 A. Yes.

10:35 24 Q. The claim is not limited to a manned rotary
10:35 25 aircraft?

10:35 1 A. Correct.

10:35 2 Q. The words of Claim 13 do not say that the
10:35 3 controllers are on board the rotary aircraft, correct?

10:35 4 A. The word "on board" is not used, correct.

10:36 5 Q. The claim does not say that the controllers
10:36 6 are physically part of the rotary aircraft, correct?

10:36 7 A. The words "physically" and the words "part"
10:36 8 aren't used. Correct.

10:36 9 Q. And just so we're clear, the claim does not
10:36 10 say manned rotary aircraft, right?

10:36 11 A. That's right. The word "manned" isn't in the
10:36 12 claim. It doesn't say manned rotary aircraft.

10:36 13 Q. And the words "onboard controllers" are not in
10:36 14 the claim?

10:36 15 A. That's right. The word "onboard" has been
10:37 16 written on here with red ink. It's not in the claim.

10:37 17 Q. Right. Those are the concepts you're adding
10:37 18 into the claim?

10:37 19 A. I disagree completely.

10:37 20 Q. The claim doesn't say that there is a pilot on
10:37 21 board the aircraft, does it?

10:37 22 A. No. The word "pilot" is not in the claim
10:37 23 either.

10:37 24 MR. RICH: May I have Dr. Nourbakhsh's
10:37 25 Slide 47, please?

10:37 1 BY MR. RICH:

10:37 2 Q. Do you remember showing the jury this slide
10:37 3 yesterday?

10:37 4 A. Yes.

10:37 5 Q. And you see the words "pedals" and "cyclic
10:37 6 stick" and "collective stick"?

10:37 7 A. I do.

10:37 8 Q. And then you went to Slide 55, and you used
10:37 9 this same figure from that helicopter you were showing
10:37 10 and those sticks to try to map them to the language of
10:37 11 the claim, correct?

10:38 12 A. Yes.

10:38 13 Q. The claim does not use the word "pedals," does
10:38 14 it?

10:38 15 A. No. It doesn't have the word "pedals" in it.

10:38 16 Q. Claim doesn't use the word "cyclic stick,"
10:38 17 does it?

10:38 18 A. It doesn't have that word in it.

10:38 19 Q. Claim also doesn't say collective stick,
10:38 20 right?

10:38 21 A. That's right. It doesn't have that word in
10:38 22 it.

10:38 23 Q. The claim instead uses the term "rotary
10:38 24 aircraft having the four controllers," right?

10:38 25 A. Correct.

10:38 1 Q. And a drone is a type of rotary aircraft,
10:38 2 right?

10:38 3 A. Correct.

10:38 4 Q. You sat in the courtroom when Mr. Christensen
10:38 5 testified two days ago, right?

10:38 6 A. I did.

10:38 7 MR. RICH: May I have the Day 1 trial
10:38 8 transcript at 229, Lines 16 through 17?

10:38 9 BY MR. RICH:

10:38 10 Q. This is one of those transcripts I was talking
10:38 11 about just a minute ago.

10:38 12 All right. This is a question Mr. Christensen
10:39 13 was asked, and he answered that he does think his
10:39 14 invention is applicable and useful for drones.

10:39 15 Do you see that?

10:39 16 A. I do.

10:39 17 Q. Now, you told the jury you fly your own
10:39 18 personal plane, right?

10:39 19 A. I do.

10:39 20 Q. Yet you're here disagreeing with
10:39 21 Mr. Christensen about the words of his -- what the
10:39 22 words of his invention mean even though he retired from
10:39 23 the Air Force after flying F-16s and F-22s, right?

10:39 24 A. Well, I don't disagree with his words. If you
10:39 25 would like me to explain, I can explain.

10:39 1 Q. One thing we can agree on is that the claim
10:39 2 just says: The rotary aircraft has the controllers,
10:39 3 right?

10:39 4 A. Yes.

10:39 5 Q. Now, my wife bought a new TV last year. I was
10:39 6 pretty excited, okay?

10:39 7 A. Okay.

10:39 8 Q. You probably won't be surprised to learn that
10:39 9 the TV had a remote controller with it in the box.

10:39 10 A. I think you just used the word to "have."

10:39 11 Q. Right. The TV has a remote with it, right?

10:40 12 A. With it. Yes. I understand your use.

10:40 13 Q. You're not aware of any DJI drones that are
10:40 14 sold in the United States that don't have a remote
10:40 15 controller in the box with it?

10:40 16 A. No. I'm not.

10:40 17 Q. In fact, this box right here is an example of
10:40 18 the boxes that DJI drones come in?

10:40 19 A. Yes.

10:40 20 Q. Right. And it has a drone that has a remote
10:40 21 controller with it?

10:40 22 A. Yes. It has a drone in the box, and it has a
10:40 23 remote control in the box.

10:40 24 Q. Did you see the padding on that box?

10:40 25 A. The foam?

10:40 1 Q. Yeah.

10:40 2 A. I do see it.

10:40 3 Q. Pretty thick padding, right?

10:40 4 A. I think -- hopefully, it's just thick enough.

10:40 5 Q. You need a lot of padding to protect one of
10:40 6 those drones that costs 2 or 3,000 bucks, don't you?

10:40 7 A. I think they cost anywhere from 200 bucks up.

10:40 8 Q. Now, you used the term "fly-by-wire"
10:40 9 yesterday, right?

10:40 10 A. I did.

10:41 11 Q. You said yesterday that the drones don't meet
10:41 12 the rotary aircraft element because the drones are
10:41 13 not -- this is your quote -- "not fly-by-wire."

10:41 14 Do you remember that?

10:41 15 A. I remember that. It's a little out of
10:41 16 context, but I remember that. Yes, sir.

10:41 17 Q. That was your testimony that DJI drones are
10:41 18 not fly-by-wire, right?

10:41 19 A. They aren't. That's true.

10:41 20 Q. But, sir, a drone is a type of fly-by-wire
10:41 21 aircraft, right?

10:41 22 A. I disagree with your use of the words.

10:41 23 Q. You disagree that a drone is a type of
10:41 24 fly-by-wire system?

10:41 25 A. Usually when we talk about drones, we're

10:41 1 talking about a remote control system.

10:41 2 MR. RICH: Objection, nonresponsive.

10:41 3 THE COURT: Sustained.

4 A. Sorry.

10:41 5 BY MR. RICH:

10:41 6 Q. Dr. Nourbakhsh, you agree that a drone is a
10:41 7 type of fly-by-wire system?

10:41 8 A. I disagree.

10:41 9 Q. Sir, I took your deposition in this case,
10:41 10 didn't I?

10:42 11 A. Yes.

10:42 12 Q. And you were under oath in your deposition,
10:42 13 weren't you?

10:42 14 A. Yes.

10:42 15 Q. And there was a court reporter there, right?

10:42 16 A. Yes.

10:42 17 Q. And they were taking down the testimony?

10:42 18 A. That's right.

10:42 19 Q. And at that deposition I asked you: A drone
10:42 20 is a type of fly-by-wire system, right?

10:42 21 A. Yes.

10:42 22 Q. And you answered: The whole system of a
10:42 23 remote control system is a fly-by-wire. Yes?

10:42 24 Did I ask that question and did you give that
10:42 25 answer?

10:42 1 A. I don't remember the details, but I bet I did
10:42 2 give that answer because you're asking me this way. So
10:42 3 yes.

10:42 4 THE COURT: Counsel, if you're at a point
10:42 5 we can break, why don't we take our morning recess?

10:42 6 MR. RICH: Certainly, Your Honor.

10:42 7 THE COURT: Ladies and gentlemen of the
10:42 8 jury, we'll stand in recess for about ten minutes.

10:42 9 THE BAILIFF: All rise.

10:42 10 (Jury exited the courtroom.)

10:42 11 THE COURT: Doctor, you may step down.
10:43 12 You may be seated.

10:43 13 Is there anything we need to take up?

10:43 14 MR. MEEK: Nothing from plaintiff.

10:43 15 MR. SCHLESINGER: No, Your Honor.

10:43 16 (Recess taken.)

10:56 17 THE BAILIFF: All rise.

10:56 18 THE COURT: Please remain standing for
10:56 19 the jury.

10:56 20 (Jury entered the courtroom.)

10:56 21 THE COURT: Thank you. You may be
22 seated.

10:57 23 MR. RICH: Your Honor, may I approach the
10:57 24 witness with binders?

10:57 25 THE COURT: Sure.

10:58 1 BY MR. RICH:

10:58 2 Q. All right. Dr. Nourbakhsh, are you ready to
10:58 3 continue, sir?

10:58 4 A. Yes.

10:58 5 Q. All right. Yesterday when you were talking
10:58 6 about the controllers on board the aircraft, you talked
10:58 7 about something called "degraded visual environments,"
10:58 8 right?

10:58 9 A. Correct.

10:58 10 Q. Fog is a type of degraded visual environment,
10:58 11 correct?

10:58 12 A. Yes.

10:58 13 Q. You talked about how DJI's user manuals say do
10:58 14 not use in fog, right?

10:58 15 A. Yes.

10:58 16 Q. And you told the jury that you're not allowed
10:58 17 to fly this if there's fog, correct?

10:58 18 A. Correct.

10:58 19 Q. You said that's illegal, right?

10:58 20 A. No. I said the FAA says it's illegal to fly
10:58 21 it if you can't see it.

10:58 22 Q. You also said that you can't even touch your
10:59 23 drone in those situations, right?

10:59 24 A. Yes.

10:59 25 Q. But you, yourself, have flown drones in fog?

10:59 1 A. Yes. That's true. I have.

10:59 2 Q. So you didn't follow DJI's own rules?

10:59 3 A. Correct.

10:59 4 Q. And so when people break the rules and fly
10:59 5 their drones in fog, rain, smog, DJI has to make sure
10:59 6 that there are features, like Mr. Christensen's
10:59 7 automatic hovering technology, to make sure the drones
10:59 8 don't crash, right?

10:59 9 A. I think there should be features to keep it
10:59 10 from crashing. I don't think they need to be like
10:59 11 Mr. Christensen's claim.

10:59 12 Q. Automatic hovering is one of those features
10:59 13 that prevent the drone from crashing, right?

10:59 14 A. That feature is a good feature, yes.

10:59 15 Q. You submitted an opinion in your expert report
10:59 16 that you gave to us in this case that DJI doesn't
10:59 17 infringe the patent '752, right?

11:00 18 A. Claim 13, yes.

11:00 19 Q. And you tried to be as careful as possible
11:00 20 when you wrote that report, right?

11:00 21 A. I tried.

11:00 22 Q. You're a pretty detail-oriented guy, right?

11:00 23 A. I try.

11:00 24 Q. As part of that report, you included a section
11:00 25 that provided your understanding of the law that you

11:00 1 were supposed to apply to the case, right?

11:00 2 A. Yes.

11:00 3 Q. And DJI's attorneys provided you with that
11:00 4 law, right?

11:00 5 A. Yes. They helped make sure we're getting it
11:00 6 right.

11:00 7 Q. Now, all of the instructions from DJI's
11:00 8 attorneys on the law to apply to this case were in your
11:00 9 report on noninfringement, right?

11:00 10 A. Yes.

11:00 11 Q. You didn't omit any instructions from DJI's
11:00 12 attorneys in that report, right?

11:00 13 A. Not that I'm aware.

11:00 14 Q. You've heard the saying "the rules of the
11:00 15 road," right?

11:00 16 A. Sure.

11:00 17 Q. It's a metaphor for the rules that we're
11:00 18 supposed to follow, right?

11:00 19 A. Yes.

11:00 20 Q. The Court has given us a rule of the road for
11:01 21 the infringement analysis for the '752 patent, correct?

11:01 22 A. Okay.

11:01 23 Q. And that's because DJI did not produce certain
11:01 24 source code, you were supposed to presume that the
11:01 25 source code would have been favorable to Textron and

11:01 1 its infringement allegations on the '752 patent,
11:01 2 correct?

11:01 3 A. Correct.

11:01 4 Q. But you did not include anything about that
11:01 5 presumption in your report on noninfringement, did you?

11:01 6 A. I didn't write about it, no.

11:01 7 Q. And you didn't mention the presumption in your
11:01 8 direct examination just this morning?

11:01 9 A. No.

11:01 10 Q. Or yesterday?

11:01 11 A. Correct.

11:01 12 Q. Now, even though the rule of the road is to
11:01 13 presume the missing code is favorable to Textron's
11:01 14 infringement case for the '752 patent, you testified
11:01 15 yesterday that that code's not relevant, didn't you?

11:01 16 A. I did so.

11:01 17 MR. RICH: May I please have Plaintiff's
11:02 18 Exhibit 106?

11:02 19 BY MR. RICH:

11:02 20 Q. Okay. You recognize this as DJI's application
11:02 21 to the Chinese government to export some of its source
11:02 22 code for this case, right?

11:02 23 A. I do.

11:02 24 Q. DJI wouldn't lie to the Chinese government,
11:02 25 would it?

11:02 1 A. I certainly hope nobody lies to nobody.

11:02 2 Q. Did you hear your counsel ask one of our
11:02 3 witnesses if they knew what would happen if someone
11:02 4 lied to the Chinese government?

11:02 5 A. I remember that.

11:02 6 Q. You know what would happen if they did?

11:02 7 A. Probably bad things, fines and imprisonment.

11:02 8 Q. Probably bad things.

11:02 9 MR. RICH: Let's go to Page 7 of
11:02 10 Plaintiff's Exhibit 106.

11:02 11 Can we please zoom in on the top?

11:02 12 BY MR. RICH:

11:02 13 Q. Okay. Doctor, do you see "Purpose of
11:02 14 Technology Export" at the top?

11:02 15 A. I do.

11:02 16 Q. Okay. The purpose of the application that DJI
11:03 17 put right here was to provide relevant source codes in
11:03 18 a litigation to fulfill discovery obligations under
11:03 19 civil litigation law of the United States.

11:03 20 Do you see that?

11:03 21 A. Sure.

11:03 22 Q. DJI told the Chinese government that the
11:03 23 missing code is relevant source code?

11:03 24 A. Relevant to the discovery obligations, yeah.

11:03 25 Q. Sir, DJI told the Chinese government that

11:03 1 there was relevant source code, correct?

11:03 2 A. Yes.

11:03 3 Q. And you're here saying it's irrelevant,

11:03 4 correct?

11:03 5 A. To Claim 13, yeah.

11:03 6 Q. But DJI didn't say it was irrelevant to the

11:03 7 Chinese government, right?

11:03 8 A. DJI did not tell the Chinese government this

11:03 9 source code is irrelevant to Claim 13, no. They didn't

11:03 10 say that.

11:04 11 Q. And to be clear, sir, you have not seen the

11:04 12 missing source code, have you?

11:04 13 A. No. I haven't.

11:04 14 Q. Yet you're telling the jury that code you've

11:04 15 never seen in your life is totally irrelevant, aren't

11:04 16 you?

11:04 17 A. No. I'm telling the jury it's irrelevant to

11:04 18 understanding infringement or noninfringement of

11:04 19 Claim 13.

11:04 20 MR. RICH: Objection, nonresponsive.

11:04 21 THE COURT: Sustained.

11:04 22 BY MR. RICH:

11:04 23 Q. Sir, you're telling the jury that code you've

11:04 24 never seen in your life is irrelevant, aren't you?

11:04 25 A. No.

11:04 1 Q. You have seen the missing code?

11:04 2 A. No.

11:04 3 Q. But you testified it was irrelevant yesterday?

11:04 4 THE WITNESS: Your Honor, I don't know
11:04 5 how to respond.

11:04 6 THE COURT: I understood the question.
11:04 7 I'm not sure why you can't.

11:04 8 A. Okay. Ask it one more time.

11:04 9 BY MR. RICH:

11:04 10 Q. You testified it was irrelevant yesterday,
11:04 11 correct?

11:04 12 A. Yes.

11:04 13 Q. And you've never seen it in your life,
11:04 14 correct?

11:04 15 A. That's right.

11:04 16 Q. Thank you.

11:04 17 Now, you did a demonstration in this courtroom
11:05 18 yesterday, right?

11:05 19 A. I did.

11:05 20 Q. You had the drone in the air flying and went
11:05 21 up to push it with your finger like this, right?

11:05 22 A. I pulled on it with my finger like this.

11:05 23 Q. Now, you gave us this video the other day,
11:05 24 didn't you? This is a still shot, right?

11:05 25 A. Yes.

11:05 1 Q. And that's you?

11:05 2 A. Yes.

11:05 3 Q. So you did the same demonstration a couple
11:05 4 days ago?

11:05 5 A. Yes.

11:05 6 Q. Have you ever seen that symbol in your
11:06 7 lifetime?

11:06 8 A. Yes.

11:06 9 Q. Tells you not to do something, doesn't it?

11:06 10 A. Yes.

11:06 11 MR. RICH: Can we have the Phantom 4
11:06 12 series disclaimer and safety guidelines?

11:06 13 BY MR. RICH:

11:06 14 Q. Have you ever seen this document before,
11:06 15 Doctor?

11:06 16 A. I believe so, yes.

11:06 17 Q. It's a DJI document, right?

11:06 18 A. Yes.

11:06 19 Q. Called "Disclaimer and Safety Guidelines,"
11:06 20 right?

11:06 21 A. Yes.

11:06 22 Q. This document lays out some of DJI's rules for
11:06 23 safety, right?

11:06 24 A. Yes.

11:06 25 MR. RICH: Let's go to Page 3 of this

11:06 1 document.

11:06 2 Zoom in on the bottom left-hand corner,
11:06 3 please.

11:06 4 BY MR. RICH:

11:06 5 Q. You see the "don't do it" symbol over the
11:07 6 person's finger approaching the drone?

11:07 7 A. The propellers, yeah.

11:07 8 Q. And so DJI's telling the world, stay away from
11:07 9 the rotating propellers and motors, right?

11:07 10 A. Yes.

11:07 11 Q. In all of the cases where you've said that DJI
11:07 12 doesn't infringe a patent, is this the first one where
11:07 13 you've broken DJI's own rules to make your
11:07 14 noninfringement argument?

11:07 15 A. I don't remember.

11:07 16 Q. Now, you heard that Mr. Baker over there does
11:07 17 public safety marketing at Creative Studios?

11:07 18 A. Yes.

11:07 19 Q. Did he give you a talking-to after that
11:07 20 yesterday when he saw you break this rule?

11:07 21 A. I don't believe so.

11:07 22 Q. Now, you said in your demonstration that it
11:07 23 shows that DJI holds position, right?

11:07 24 A. Yes.

11:07 25 Q. When you're holding position, you're holding,

11:07 1 generally speaking, at zero, aren't you?

11:07 2 A. At times, yes.

11:08 3 MR. RICH: May I have the '752 patent,
11:08 4 please?

11:08 5 May I have Column 9 of the '752, please?

11:08 6 And if you could please zoom in on
11:08 7 Lines 23 through 27.

11:08 8 BY MR. RICH:

11:08 9 Q. Okay. You see the "PH" there?

11:08 10 A. I do.

11:08 11 Q. That's position hold?

11:08 12 A. Yes.

11:08 13 Q. And that's where Mr. Christensen's patent is
11:08 14 talking about position hold?

11:08 15 A. In this section, sure.

11:08 16 Q. And what Mr. Christensen's patent says at
11:08 17 Line 24: With position hold engaged, the captured
11:08 18 position will be tightly held even in the presence of
11:09 19 disturbances due to gusty winds or control inputs in
11:09 20 the directional or vertical axes.

11:09 21 You see that, right?

11:09 22 A. Yes.

11:09 23 Q. And the patent says in the next sentence that:
11:09 24 If the aircraft drifts off from the captured position,
11:09 25 the position hold mode will make corrections to bring

11:09 1 it back.

11:09 2 You see that, right?

11:09 3 A. I do.

11:09 4 Q. And so just because there are small
11:09 5 corrections in the speed, that doesn't mean there's not
11:09 6 a forward speed hold loop in Claim 13, right?

11:09 7 A. I don't understand. This is talking about
11:09 8 position hold. I agree with Dr. Christensen.

11:09 9 Can you ask the question in a way that I can
11:09 10 give a yes/no answer?

11:09 11 Q. Yes, sir.

11:09 12 Just because there are corrections in the
11:09 13 speed, that doesn't mean that there's not a forward
11:09 14 speed hold loop in Claim 13, right?

11:09 15 A. Just because there are corrections in the
11:09 16 speed doesn't mean there isn't? So it does mean there
11:09 17 is?

11:10 18 Yes. Just because there are corrections in
11:10 19 the speed means you're doing -- you could be -- you
11:10 20 could be doing position hold, yes.

11:10 21 Q. Sir, just because there are tiny corrections
11:10 22 in the speed that you're trying to hold, that doesn't
11:10 23 mean that it's not a forward speed hold loop, correct?

11:10 24 A. Correct.

11:10 25 Q. And when Claim 13 requires the forward speed

11:10 1 hold loop to engage when the controller is returned to
11:10 2 a detent position, the drone just needs to consistently
11:10 3 hold its forward speed, right?

11:10 4 A. That's fine.

11:10 5 Q. It sure looked yesterday to my eyes that the
11:10 6 drone you flew was holding speed at zero until you went
11:10 7 up and knocked it off its normal operation, okay?

11:10 8 A. I disagree a little bit.

11:10 9 Q. When you went up and knocked that drone off
11:10 10 its normal hovering operation, you broke DJI's safety
11:10 11 guidelines telling you not to do exactly what you did,
11:11 12 correct?

11:11 13 A. I disagree with that too.

11:11 14 Q. But we don't have to trust our eyes on this
11:11 15 one because we have Mr. Shang, right?

11:11 16 A. I like trusting everything. I want to talk to
11:11 17 people, see it and look at code.

11:11 18 Q. Mr. Shang, who's one of the folks in charge of
11:11 19 DJI's flight control technology, correct?

11:11 20 A. Yes.

11:11 21 Q. Now, unlike you and me, Mr. Shang had full
11:11 22 access to the flight control code, right?

11:11 23 A. Sure.

11:11 24 Q. You didn't mention Mr. Shang one time during
11:11 25 your examination yesterday.

11:11 1 Did you know that?

11:11 2 A. I do know that.

11:11 3 Q. You did mention that you had some closed-door
11:11 4 talks with DJI engineers, though, didn't you?

11:11 5 A. I did.

11:11 6 Q. I wasn't invited to those closed-door talks,
11:11 7 was I?

11:11 8 A. Not if they're closed-door.

11:11 9 Q. You didn't put Mr. Shang under oath when you
11:12 10 had those closed-door talks with him, did you?

11:12 11 A. No.

11:12 12 Q. Well, sir, I personally got to depose
11:12 13 Mr. Shang, and he was under oath, okay?

11:12 14 A. I understand.

11:12 15 MR. RICH: May I please have

11:12 16 Dr. Michalson's Slide 30?

11:12 17 BY MR. RICH:

11:12 18 Q. You saw this the other day in the courtroom,
11:12 19 correct?

11:12 20 A. I did.

11:12 21 Q. And this is Mr. Shang on the left?

11:12 22 A. Yes.

11:12 23 Q. And this was where Dr. Michalson talked about
11:12 24 the forward speed hold loop, right?

11:12 25 A. I do.

11:12 1 Q. And you see that Mr. Shang said if the right
11:12 2 stick is centered, a DJI drone will hold its forward
11:12 3 speed at zero, correct?

11:12 4 A. I see that.

11:12 5 Q. And he said if the right stick is centered, a
11:12 6 DJI drone will hold its backward speed at zero,
11:12 7 correct?

11:12 8 A. He said that.

11:12 9 Q. And if the right stick is centered, a DJI
11:12 10 drone will hold its left speed at zero, correct?

11:13 11 A. He said that too.

11:13 12 Q. And he also said that if the right stick is
11:13 13 centered, a DJI drone will hold right speed at zero,
11:13 14 correct?

11:13 15 A. He said that too.

11:13 16 Q. Now, in DJI's drones when the user centers the
11:13 17 control stick to the detent position, the horizontal
11:13 18 velocity command is set to zero, correct?

11:13 19 A. Yes.

11:13 20 Q. The drone can issue a horizontal speed command
11:13 21 of zero and then issue the same command again, can't
11:13 22 it?

11:13 23 A. Yes.

11:13 24 Q. When you were asked yesterday how you know
11:13 25 drones are holding a position, you pulled up a source

11:13 1 code file, didn't you?

11:13 2 A. I did.

11:13 3 Q. And you showed a function name "horizontal
11:14 4 position control."

11:14 5 Do you remember that?

11:14 6 A. I do.

11:14 7 Q. But you left out something important. You're
11:14 8 aware that one of the files that DJI withheld in this
11:14 9 case is called the "horizontal velocity control,"
11:14 10 right?

11:14 11 A. Okay.

11:14 12 Q. Now, they only gave us the position control
11:14 13 code but not the velocity control code.

11:14 14 You understand that?

11:14 15 A. So they gave us a file that has one name, and
11:14 16 they didn't give us a file that has a different name.
11:14 17 Okay.

11:14 18 Q. Right. The file that you showed yesterday was
11:14 19 horizontal position control, but DJI withheld the file
11:14 20 horizontal velocity control run?

11:14 21 A. Okay.

11:14 22 Q. So you think it's fair to be saying that DJI
11:14 23 only holds position when DJI didn't give the file
11:14 24 titled the function name "horizontal velocity control
11:14 25 run"?

11:14 1 A. You know, the file names don't have anything
11:14 2 to do with my opinion based on the code that I read.

11:14 3 Q. One thing that we can be sure of here, though,
11:15 4 is that Mr. Shang testified under oath that DJI holds
11:15 5 forwards, backwards, left and right speed at zero,
11:15 6 correct?

11:15 7 A. He said that.

11:15 8 Q. Now, you also talked yesterday about DJI not
11:15 9 infringing because it doesn't control pitch rate.

11:15 10 Do you remember that?

11:15 11 A. I do.

11:15 12 MR. RICH: Can I have Claim 13, please?

11:15 13 Can we please zoom in on: Wherein
11:15 14 longitudinal maneuverability of the rotary aircraft is
11:15 15 controlled by either the pitch attitude or pitch rate
11:15 16 loop?

11:15 17 Claim 13, right around Line 40.

11:16 18 BY MR. RICH:

11:16 19 Q. All right. Doctor, you can see that --

11:16 20 A. I can.

11:16 21 Q. -- okay? Okay.

11:16 22 Now, the claim refers to longitudinal
11:16 23 maneuverability, right?

11:16 24 A. Yes.

11:16 25 Q. And it says longitudinal maneuverability is

11:16 1 controlled by one of two types of loops, right?

11:16 2 A. Correct.

11:16 3 Q. The thing being controlled here is
11:16 4 longitudinal maneuverability?

11:16 5 A. Correct.

11:16 6 Q. The claim does not say it the other way around
11:16 7 that there is -- let me strike that.

11:16 8 The claim doesn't say it the other way around.
11:16 9 The words "control pitch attitude" don't appear in the
11:16 10 claim, correct?

11:16 11 A. I think if you're saying it's using the
11:16 12 passive voice rather than the active voice, yeah. It's
11:16 13 saying controlled by rather than controls.

11:16 14 Q. Correct. The claim does not say control pitch
11:16 15 attitude, right?

11:16 16 A. No. It says controlled by pitch attitude.

11:17 17 Q. The thing being controlled is longitudinal
11:17 18 maneuverability, right?

11:17 19 A. The -- it's -- yes. An inverted passive
11:17 20 voice. So the object is longitudinal maneuverability,
11:17 21 the subject is the attitude loop.

11:17 22 Q. Now, you said yesterday, I quote: DJI doesn't
11:17 23 care about its attitude one bit.

11:17 24 Do you remember that?

11:17 25 A. Sure. I can believe that quote.

11:17 1 Q. Even though you testified under oath yesterday
11:17 2 that DJI doesn't care about attitude, DJI drones have
11:17 3 an attitude loop, don't they?

11:17 4 A. Of course. All the loops have to be there.

11:17 5 Q. But they don't care about attitude?

11:17 6 A. I think you're taking that quote way out of
11:17 7 context, sir.

11:17 8 Q. Well, it was your words, wasn't it, Doctor?

11:17 9 A. It was my words.

11:17 10 Q. The attitude loop commands attitude, doesn't
11:17 11 it?

11:17 12 A. The attitude loop makes sure you're stable in
11:17 13 the attitude direction. Yes.

11:17 14 Q. Sir, the attitude loop commands attitude,
11:18 15 doesn't it?

11:18 16 A. Yeah.

11:18 17 Q. In DJI's product?

11:18 18 A. In any attitude loop, including DJI's
11:18 19 products. The attitude loop helps you keep track of
11:18 20 attitude.

11:18 21 Q. The attitude loop in DJI's product adjusts
11:18 22 pitch attitude, doesn't it?

11:18 23 A. Yes.

11:18 24 Q. Now, even though you're arguing that DJI
11:18 25 doesn't infringe this pitch attitude element, one of

11:18 1 the source code modules that DJI did not give us is
11:18 2 called the "attitude sensing determination module,"
11:18 3 right?

11:18 4 A. Okay.

11:18 5 Q. Right?

11:18 6 A. Yes. That's the name of a piece of code.

11:18 7 Q. You talked some about Claim 1 of the '752
11:18 8 patent.

11:18 9 Do you remember that?

11:18 10 A. Not very clearly, but you can refresh me.

11:18 11 Q. You understand that Textron is asserting
11:18 12 Claim 13 of the '752 patent, right?

11:18 13 A. Correct.

11:18 14 Q. Not Claim 1 of the '752 patent that you
11:19 15 pointed to?

11:19 16 A. Correct.

11:19 17 Q. You understand that the title of the '752
11:19 18 patent is "Flight Control Laws for Automatic Hover
11:19 19 Hold," right?

11:19 20 A. Yes.

11:19 21 Q. You understand that a patent claim can cover a
11:19 22 feature without actually reciting the tokenized name of
11:19 23 the feature, right?

11:19 24 A. Sure.

11:19 25 Q. For example, let's say I had a claim that

11:19 1 covered the boundaries of Apple's FaceTime feature, but
11:19 2 my claim didn't say the words "FaceTime," okay?

11:19 3 A. Correct.

11:19 4 Q. My claim instead said do a voice call with
11:19 5 volume, okay?

11:19 6 A. Okay.

11:19 7 Q. My claim does not actually have to use the
11:19 8 words "FaceTime" to cover the boundaries of FaceTime,
11:19 9 right?

11:19 10 A. That's right.

11:19 11 Q. So to clear up any confusion here, the jury,
11:19 12 when it does its deliberations, will have to compare
11:19 13 the boundaries of Claim 13 of the '752 patent to DJI's
11:19 14 drones to determine infringement?

11:19 15 A. Exactly.

11:20 16 MR. RICH: Can I have Dr. Nourbakhsh's
11:20 17 slide at -- 70?

11:20 18 BY MR. RICH:

11:20 19 Q. Moving on to the '909 patent, Doctor.
11:21 20 Yesterday you testified and today, I think, again I
11:21 21 heard you testify over and over again about closing and
11:21 22 landing on a boat, right?

11:21 23 A. Yes.

11:21 24 Q. Claim 1 of the '909 patent is not limited to a
11:21 25 boat, is it?

11:21 1 A. Not limited to a boat. No.

11:21 2 Q. Claim 1 of the '909 patent is not limited to
11:21 3 closure, is it?

11:21 4 A. It's not limited to that. No.

11:21 5 Q. And, in fact, there's no boat recited in
11:21 6 Claim 1, is there?

11:21 7 A. There is no word "boat" in Claim 1.

11:21 8 Q. Right. Mr. Harris broadly used the word
11:21 9 "reference vehicle," correct?

11:21 10 A. In Claim 1, it says reference vehicle. Yeah.

11:21 11 Q. And you heard Mr. Harris testify that he did
11:21 12 not limit his invention to landing on a boat, correct?

11:21 13 A. That's right.

11:21 14 Q. All right.

11:21 15 MR. RICH: Let's look at Claim 1 of the
11:22 16 '909 patent.

11:22 17 If we could highlight "calculating a
11:22 18 calculated velocity of the aircraft relative to the
11:22 19 reference vehicle," please?

11:22 20 BY MR. RICH:

11:22 21 Q. Okay. Do you see that element, Doctor?

11:22 22 A. I do.

11:22 23 Q. When you were interpreting that element, you
11:22 24 read that to mean the act of calculating a relative
11:22 25 velocity where, in mathematics, you do that by

11:22 1 subtracting two velocities to get a differential; is
11:22 2 that right?

11:22 3 A. Yes.

11:22 4 Q. You based your noninfringement opinion on that
11:22 5 interpretation, didn't you?

11:22 6 A. There's many bases for the noninfringement
11:23 7 opinion, but that's certainly an interpretation I used
11:23 8 for that part. Yes.

11:23 9 Q. Sir, that's the interpretation you used when
11:23 10 you were looking at whether DJI's drones calculate a
11:23 11 calculated velocity, correct?

11:23 12 A. Yes.

11:23 13 Q. But the words of the claim don't say subtract
11:23 14 one velocity from another to get a differential,
11:23 15 correct?

11:23 16 A. You want me to answer the question, is the
11:23 17 word "subtract" in that phrase?

11:23 18 Q. Sir, I asked: The words of the claim don't
11:23 19 say, subtract one velocity from another to get a
11:23 20 differential, correct?

11:23 21 A. No. They don't say "subtract one velocity
11:23 22 from another to get a differential."

11:23 23 Q. In Follow Me, DJI's drones will calculate the
11:23 24 velocity of the object that's being followed, correct?

11:23 25 A. Yes.

11:23 1 Q. The velocity of the reference vehicle is set
11:23 2 to the value of a variable in DJI's code, right?

11:24 3 A. Sure.

11:24 4 Q. In ActiveTrack mode, DJI's drone will also
11:24 5 calculate the velocity of the reference vehicle, won't
11:24 6 it?

11:24 7 A. Yes.

11:24 8 Q. And DJI's code will also set the value of the
11:24 9 velocity of the reference vehicle, correct?

11:24 10 A. Yes.

11:24 11 Q. DJI's drone will then calculate a velocity for
11:24 12 the drone to fly at in ActiveTrack mode, right?

11:24 13 A. Sure.

11:24 14 Q. DJI's drones will compute the velocity of the
11:24 15 drone needed to move it to maintain a stable distance
11:24 16 from the target at all times, correct?

11:24 17 A. Yes.

11:24 18 Q. Can you see this okay, Doctor? Can you see
11:25 19 the --

11:25 20 MR. RICH: Oh, I need to publish that.
11:25 21 There we go.

11:25 22 MR. SCHLESINGER: Your Honor, may we seal
11:25 23 the courtroom?

11:25 24 THE COURT: Sure.

11:25 25 If you're not under the protective order,

11:25 1 please exit.

11:25 2 MR. RICH: Thank you.

11:25 3 (Sealed proceedings.)

11:25 4 BY MR. RICH:

11:26 5 Q. All right, Doctor. Can you see this okay?

11:26 6 A. I can.

11:26 7 Q. And this is the slide where Dr. Michalson
11:26 8 showed some ActiveTrack code, right?

11:26 9 A. Yes.

11:26 10 Q. And you put this up yesterday, right?

11:26 11 A. I did.

11:26 12 Q. And you talked about how this isn't about
11:26 13 velocity, right?

11:26 14 A. Right.

11:26 15 [REDACTED]

11:26 16 [REDACTED]

11:26 17 Q. That's at Line 5532?

11:26 18 A. Yes.

11:26 19 [REDACTED]

11:26 20 [REDACTED]

11:26 21 [REDACTED]

11:26 22 [REDACTED]

11:26 23 [REDACTED]

11:26 24 [REDACTED]

11:26 25 [REDACTED]

11:26

1

[REDACTED]

11:26

2

[REDACTED]

11:26

3

[REDACTED]

11:26

4

[REDACTED]

11:26

5

Q. Now, you were in the courtroom for

11:27

6

Dr. Michalson's examination, right?

11:27

7

A. Yes. I was.

11:27

8

Q. And you saw him put up a slide showing

11:27

9

differences between Claim 1 and Claim 7 of the '909

11:27

10

patent?

11:27

11

A. I remember that.

11:27

12

Q. Now, you agree that Claim 1 recites a

11:27

13

calculation of calculated velocity, correct?

11:27

14

A. Yes.

11:27

15

Q. And Claim 1 isn't the claim that requires a

11:27

16

calculation of position relative to the reference

11:27

17

vehicle, correct?

11:27

18

A. Correct.

11:27

19

Q. One of the main differences between Claims 1

11:27

20

and 7 is that Claim 7 requires a calculation of

11:27

21

position relative to the reference vehicle, correct?

11:27

22

A. Yes. It adds that.

11:27

23

Q. And do you agree that Follow Me meets the

11:27

24

element of calculation of a position of the aircraft

11:28

25

relative to the reference vehicle as recited in

11:28 1 Claim 7?

11:28 2 A. The specific part, yes.

11:28 3 Q. And do you agree that ActiveTrack meets the
11:28 4 element in Claim 7 of a calculation of a position of
11:28 5 the aircraft relative to the reference vehicle, right?

11:28 6 A. Again, that specific part. Sure.

11:28 7 Q. You talked some about the '909 patent claim
11:28 8 element reference data communicating position and
11:28 9 movement.

11:28 10 Do you remember that?

11:28 11 A. I do.

11:28 12 Q. And in Follow Me mode, a drone receives GPS
11:28 13 data that tells it the position of the reference
11:28 14 vehicle, right?

11:28 15 A. Yes, sir.

11:28 16 Q. And the drone will continue to receive the GPS
11:28 17 of the reference vehicle very rapidly, right?

11:28 18 A. It does.

11:28 19 Q. [REDACTED]

11:28 20 [REDACTED]

11:29 21 [REDACTED]

11:29 22 [REDACTED]

11:29 23 [REDACTED]

11:29 24 [REDACTED]

11:29 25 [REDACTED]

11:29 1 Q. In ActiveTrack, the drone is configured to
11:29 2 receive bounding box coordinate data, right?

11:29 3 A. Correct.

11:29 4 Q. The drone uses that data to determine the
11:29 5 position of the target, right?

11:29 6 A. That's right.

11:29 7 Q. The drone uses that data to estimate the
11:29 8 movement of the target?

11:29 9 A. What data?

11:29 10 Q. The received data.

11:29 11 A. Oh, the position. Yeah. The drone looks at
11:29 12 me as I move and figures out from its camera how I'm
11:29 13 moving. That's right.

11:29 14 Q. Sir, the drone uses the bounding box
11:29 15 coordinate data to estimate the movement of the target?

11:29 16 A. The first thing you said, sir. It's to
11:29 17 estimate the position of the target.

11:29 18 Q. Sir, I took your deposition in this case,
11:29 19 didn't I?

11:30 20 A. Yes.

11:30 21 Q. And on January 25th of 2023 at Page 129,
11:30 22 Lines 4 through 8 of your transcript, I asked you: The
11:30 23 drone uses the bounding box coordinate data to estimate
11:30 24 the movement of the target, correct?

11:30 25 A. Yes.

11:30 1 Q. And you said: Yes, over time.

11:30 2 Did I ask that question and did you give that

11:30 3 answer?

11:30 4 A. That's accurate.

11:30 5 MR. RICH: Let's pull up the words of

11:30 6 Claim 1 again.

11:30 7 (Clarification by Reporter.)

11:30 8 MR. RICH: I believe we can go off the

11:30 9 sealed record.

11:30 10 THE COURT: Okay.

09:42 11 (Sealed proceedings end.)

11:30 12 MR. RICH: Now, can we -- let me get that

11:30 13 started.

11:30 14 Can we zoom in on "reference data

11:31 15 communicating a position and movement of a reference

11:31 16 vehicle," please, and the receiver element?

11:31 17 Thank you.

11:31 18 BY MR. RICH:

11:31 19 Q. Can you see that okay, Doctor?

11:31 20 A. Oh, I sure can.

11:31 21 Q. The claim says: Reference data communicating

11:31 22 a position and movement of a reference vehicle.

11:31 23 You see that, right?

11:31 24 A. I do.

11:31 25 Q. The claim doesn't say position data and

11:32 1 movement data separately communicated, correct?

11:32 2 A. The words "separately communicated" is, I
11:32 3 think, what you just added, and it's not in the
11:32 4 dependent claim, no.

11:32 5 Q. Right. The claim says: Reference data that
11:32 6 communicates position and movement, right?

11:32 7 A. Communicating. Yeah.

11:32 8 Q. There's not a limitation that says communicate
11:32 9 both things at once, right?

11:32 10 A. It doesn't say at once --

11:32 11 Q. Sorry.

12 A. -- no.

13 Q. Strike that.

11:32 14 There's not a limitation in there that says
11:32 15 don't use position information to also give you
11:32 16 movement, correct?

11:32 17 A. Doesn't have that language.

11:32 18 Q. You heard Mr. Harris testify earlier, right?

11:32 19 A. I did.

11:32 20 Q. You heard him testify that his invention could
11:32 21 communicate data indicating position and movement with
11:32 22 just GPS, right?

11:32 23 A. Yes. His invention can.

11:32 24 Q. Now, you talked about something called
11:32 25 noninfringing alternatives for the '752 patent, didn't

11:32 1 you?

11:32 2 A. I remember that.

11:32 3 Q. Those are hypothetical designs you say DJI
11:33 4 could come up with, right?

11:33 5 A. Yes. Could have come up with, yeah.

11:33 6 Q. Could have, as in could have at the date of
11:33 7 first infringement in 2015?

11:33 8 A. That's right.

11:33 9 Q. And, in fact, you came up with those
11:33 10 alternatives just for the purposes of this litigation,
11:33 11 didn't you?

11:33 12 A. I was considering what they could have done
11:33 13 that would have avoided this whole situation.

11:33 14 Q. One of the requirements for a noninfringing
11:33 15 alternative is that the alternative has to be
11:33 16 acceptable to consumers, right?

11:33 17 A. Yes.

11:33 18 Q. One of the ways that you say DJI could
11:33 19 hypothetically change its product is you add a brake
11:33 20 button to DJI's remote controllers, and the user hits
11:33 21 that brake button to trigger a hover, right?

11:33 22 A. Yes. That's right. Well, yeah. You can call
11:34 23 it --

11:34 24 Q. Until the user --

11:34 25 A. -- to trigger braking, but yes.

11:34 1 Q. Until the user hits the added brake button in
11:34 2 your hypothetical design, the drone just continues to
11:34 3 either drift or fly, right?

11:34 4 A. It coasts.

11:34 5 Q. Coasts.

11:34 6 A. Yeah.

11:34 7 Q. In other words, the drone won't come to a
11:34 8 hover when the user releases the stick like it does
11:34 9 now?

11:34 10 A. Right. It'll coast until you hit the brake
11:34 11 like a car would coast.

11:34 12 Q. It'll keep moving, right?

11:34 13 A. That's right.

11:34 14 Q. And the way you have to trigger it to brake in
11:34 15 your hypothetical is add the button, right?

11:34 16 A. Yeah. You have to have a brake pedal.

11:34 17 Q. And you say triggering a hover by hitting a
11:34 18 new button instead of releasing the stick would be
11:34 19 perfectly acceptable to consumers, right?

11:34 20 A. I think so.

11:34 21 Q. When you were tasked with determining if your
11:34 22 alternative would be acceptable to consumers, you
11:34 23 didn't go out and check with a single consumer to see
11:34 24 if that alternative would work for them, did you?

11:35 25 A. Did I survey consumers? No.

11:35 1 Q. Sir, I asked did you talk to a single consumer
11:35 2 to see if your alternative would be acceptable?

11:35 3 A. No.

11:35 4 Q. You didn't ask a single consumer if they'd be
11:35 5 happy if you took away triggering a hover using a
11:35 6 centered stick position, right?

11:35 7 A. Correct.

11:35 8 Q. And you know that they've used that
11:35 9 functionality for 11 years, correct?

11:35 10 A. They have.

11:35 11 Q. They've been used to centering a stick to
11:35 12 create a hover for 11 years?

11:35 13 A. Like people who used it for 11 years, sure.

11:35 14 Q. And then you're suddenly just going to take
11:35 15 that operation away from them, right?

11:35 16 A. From people who've used it for 11 years?

11:35 17 Q. Yes.

11:35 18 A. I'm giving an alternative, what you could have
11:35 19 done instead. Yeah.

11:35 20 Q. But you're saying that taking it away, the
11:35 21 behavior that they are used to and have used for
11:36 22 11 years, would be perfectly acceptable to them?

11:36 23 A. Well, I'm guessing a lot of them drive cars,
11:36 24 and so I believe they'll find it acceptable. Yeah.

11:36 25 MR. RICH: Objection, nonresponsive.

11:36 1 THE COURT: Sustained.

11:36 2 BY MR. RICH:

11:36 3 Q. Sir --

11:36 4 A. Yes.

11:36 5 Q. -- you're telling the jury that consumers who
11:36 6 have used a feature for 11 years and they're used to
11:36 7 that use would be perfectly fine if you totally change
11:36 8 the product and remove the thing they're used to?

11:36 9 A. Yes. And I can explain, if you'd like me to.

11:36 10 Q. And you didn't do any consumer surveys, right?

11:36 11 A. That's correct.

11:36 12 Q. You didn't ask anyone to do a consumer survey,
11:36 13 correct?

11:36 14 A. I didn't ask anybody to do consumer surveys.

11:36 15 Q. And you didn't even do any market research,
11:36 16 right?

11:36 17 A. No. I didn't do market research on brake
11:36 18 pedals or anything like that.

11:36 19 Q. Now, I've been going to the same Tex-Mex place
11:36 20 in Dallas for about ten years, okay?

11:37 21 A. I believe it.

11:37 22 Q. And I go there because I love their queso,
11:37 23 okay?

11:37 24 A. All right.

11:37 25 Q. Let's say that one day they totally change

11:37 1 their menu and take my queso, my favorite queso, off
11:37 2 the menu, okay?

11:37 3 A. I'm sorry.

11:37 4 Q. Me too. But you wouldn't be surprised to know
11:37 5 that I probably am not going back there because my
11:37 6 queso is no longer there.

11:37 7 A. Depends on how their new stuff tastes.

11:37 8 Q. That kind of sounds like what you're saying
11:37 9 DJI would do. They would take the normal operation and
11:37 10 totally change it, you agree?

11:37 11 A. I agree that it's an alternative design. Yes.
11:37 12 Different queso.

11:37 13 Q. You also talked about how easy it would be for
11:37 14 DJI to add the new brake button you're proposing,
11:37 15 right?

11:37 16 A. Yes.

11:37 17 Q. Well, let me step back a little bit.
11:37 18 We talked about how under your hypothetical
11:37 19 the drone would continue to drift, right?

11:37 20 A. It would coast. Yeah.

11:37 21 Q. And when you're saying coasting, it's still
11:38 22 coasting -- it's moving, right? Unless you hit that
11:38 23 button?

11:38 24 A. Yeah. It's what you think of as zero-pitch
11:38 25 motion. So what happens is it stops trying to push

11:38 1 itself forward. It just coasts, and that'll cause it
11:38 2 to gradually slow down.

11:38 3 I'm sorry. That's the wrong answer. Yes.

11:38 4 Q. Well, let's say I accidentally -- under your
11:38 5 hypothetical, let's say I accidentally drop the
11:38 6 controller on the ground, okay?

11:38 7 A. Okay.

11:38 8 Q. Now, with the normal operation where the
11:38 9 sticks create the hover, the drone will come to a hover
11:38 10 and stop, right?

11:38 11 A. I hope so. I mean, if you break the
11:38 12 controller, I have no idea what'll happen if it hits
11:38 13 the ground and breaks. Let's say you just let go of it
11:38 14 gently.

11:38 15 Q. Sir, if you drop the controller under the
11:38 16 normal operation and the sticks are centered, it's
11:38 17 going to come to a hover?

11:38 18 A. Yes.

11:38 19 Q. Now, if I drop it under your hypothetical and
11:38 20 I haven't hit your new button, the drone just continues
11:39 21 to go, doesn't it?

11:39 22 A. It coasts. Yeah.

11:39 23 Q. And my \$3,000 DJI drone is coasting right at
11:39 24 my house, isn't it?

11:39 25 A. It's running obstacle avoidance so it's not

11:39 1 going to hit the house. Right.

11:39 2 Q. Sir, the drone will continue to drift towards
11:39 3 my house, won't it?

11:39 4 A. Sure.

11:39 5 Q. That isn't going to end too well for the drone
11:39 6 with your new brake button, is it?

11:39 7 A. I disagree.

11:39 8 Q. But the fact is, sir, you talked about how DJI
11:39 9 could have avoided this whole thing just a minute ago.

11:39 10 But they never changed their product, did
11:39 11 they?

11:39 12 A. Can you ask that in a different way?

11:39 13 Q. Sir, DJI never implemented your proposed
11:39 14 alternative of adding a brake button, right?

11:39 15 A. Well, I've flown a really recent FPV drone
11:40 16 from DJI that has a brake button. So there is such a
11:40 17 thing as a brake button today.

11:40 18 Q. Sir, DJI hasn't actually implemented your
11:40 19 alternative, has it?

11:40 20 A. Not at the time of my deposition with you.

11:40 21 Q. Exactly. You told me that DJI hasn't
11:40 22 implemented a brake button?

11:40 23 A. Right.

11:40 24 Q. And you're supposed to be analyzing the
11:40 25 alternatives as of 2015, correct?

11:40 1 A. Okay.

11:40 2 Q. Correct?

11:40 3 A. Yes.

11:40 4 Q. And so this brand new, one product with the
11:40 5 brake button wasn't available back then?

11:40 6 A. Correct.

11:40 7 Q. You understand the standard of proof for
11:40 8 infringement, right?

11:40 9 A. Yes.

11:40 10 Q. It's a preponderance of the evidence, right?

11:40 11 A. Correct.

11:40 12 Q. That's more likely than not, right?

11:40 13 A. Yes.

11:40 14 Q. Now, DJI has to prove invalidity under a
11:40 15 different standard, right?

11:40 16 A. Yes.

11:40 17 Q. Mr. Harris and Mr. Christensen's patents are
11:41 18 presumed valid, aren't they?

11:41 19 A. Yes.

11:41 20 Q. You agree that DJI has the burden to overcome
11:41 21 that presumption of validity, right?

11:41 22 A. That's right.

11:41 23 Q. Now, because patents are presumed valid,
11:41 24 there's a higher standard for taking away a patent than
11:41 25 for establishing infringement.

11:41 1 You understand that?

11:41 2 A. That's correct.

11:41 3 Q. And do you understand that the standard for
11:41 4 taking away a patent is called clear and convincing
11:41 5 evidence?

11:41 6 A. Yes.

11:41 7 Q. I didn't hear you mention to the jury that
11:41 8 patents are presumed valid, did you?

11:41 9 A. If I forgot to say that -- I don't remember
11:41 10 mentioning it one way or the other.

11:41 11 Q. You also didn't mention that you have -- DJI
11:41 12 has to prove invalidity by clear and convincing
11:41 13 evidence.

11:41 14 You didn't tell them that, did you?

11:41 15 A. I didn't say that phrase to them.

11:41 16 Q. That's kind of important information to have,
11:41 17 isn't it?

11:41 18 A. Well, I thought they were going to get that in
11:41 19 the Judge's orders.

11:41 20 Q. And that's the standard that you had to apply
11:41 21 when you were doing your invalidity analysis?

11:41 22 A. Yes.

11:41 23 Q. You're saying that the Frink reference
11:42 24 anticipates Mr. Harris' '909 patent, right?

11:42 25 A. That's right.

11:42 1 Q. You understand that anticipation is a
11:42 2 stringent standard, right?

11:42 3 A. I do.

11:42 4 Q. If even a single limitation is not disclosed
11:42 5 in Frink, then Frink can't anticipate, right?

11:42 6 A. That's right.

11:42 7 Q. Obviousness is different than anticipation,
11:42 8 right?

11:42 9 A. It is.

11:42 10 Q. You use obviousness when the reference that
11:42 11 you're relying on doesn't actually teach all the
11:42 12 elements of the claim?

11:42 13 A. Well, my understanding may be not perfect
11:42 14 about legal matters. I don't know if you want me to
11:42 15 say this if -- or if I'm going to get in trouble.

11:42 16 Can I talk about the relationship between
11:42 17 obviousness and anticipation or do you want me to avoid
11:42 18 that?

11:42 19 Q. Well, you told the jury that the Gold
11:42 20 reference makes Mr. Christensen's '752 patent obvious,
11:42 21 right?

11:42 22 A. Yes.

11:42 23 Q. Now, as part of obviousness, DJI has to show
11:43 24 that one of ordinary skill would have been motivated to
11:43 25 combine things together, right?

11:43 1 A. And able. Yeah.

11:43 2 Q. You can't just take two pieces of prior art
11:43 3 and smash them together, can you?

11:43 4 A. Again, I don't know how to answer. We're not
11:43 5 talking about two pieces of prior art. We're talking
11:43 6 about one piece of prior art, the Gold reference.

11:43 7 Q. And you're using obviousness, right?

11:43 8 A. That's right.

11:43 9 Q. And so you're acknowledging that something
11:43 10 isn't in Gold, aren't you?

11:43 11 A. I'm acknowledging that somebody skilled in the
11:43 12 arts would be able to take Gold -- I apologize if I'm
11:43 13 giving a long answer -- and come up with the invention
11:43 14 that '752 is.

11:43 15 Q. Is it your opinion that Gold anticipates or
11:43 16 renders obvious Claim 13?

11:43 17 A. Renders obvious.

11:43 18 Q. So something is missing from Gold. It's not
11:44 19 anticipated, right?

11:44 20 A. As you pointed out, anticipate is a more
11:44 21 stringent standard.

11:44 22 Q. And so you're acknowledging that something is
11:44 23 not in Gold because you agree that it's not
11:44 24 anticipating?

11:44 25 A. Would you like me to explain?

11:44 1 Q. I would like an answer, sir.

11:44 2 A. Okay.

11:44 3 Q. Let me ask my question again, sir.

11:44 4 A. Sure.

11:44 5 Q. You -- I believe you just said that Gold
11:44 6 doesn't anticipate Claim 13, right?

11:44 7 A. Right.

11:44 8 Q. And so since it's not anticipation, that means
11:44 9 that an element is missing in Gold?

11:44 10 A. It means I use obviousness to overcome that.
11:44 11 Yes.

11:44 12 So yes. It means there's something where I
11:44 13 want obviousness instead of anticipation. And I can
11:44 14 explain if you want.

11:44 15 MR. RICH: I'll object as nonresponsive.

11:44 16 THE COURT: Sustained.

11:44 17 BY MR. RICH:

11:44 18 Q. Sir --

11:44 19 MR. RICH: Let's move on to Slide 117 at
11:45 20 Dr. Nourbakhsh's presentation, please.

11:45 21 BY MR. RICH:

11:45 22 Q. All right. You see on the right side of the
11:45 23 slide you have Claim 13 here?

11:45 24 A. I do.

11:45 25 Q. And do you see the claim element that the

11:45 1 lateral speed hold loop automatically -- well, the
11:45 2 speed hold loop automatically engages, right?

11:45 3 A. The forward -- yeah. Forward.

11:45 4 Q. Correct. Correct.

11:45 5 Claim says the loop automatically engages,
11:45 6 right?

11:45 7 A. That's right.

11:45 8 Q. All right. Now it should be displayed.

11:45 9 Claim says automatically engages, right?

11:45 10 A. That's right.

11:45 11 Q. Manually pressing a button to engage the
11:46 12 longitudinal or lateral speed hold loops would not be
11:46 13 automatically engaging those loops as recited in
11:46 14 Claim 13?

11:46 15 A. That's right.

11:46 16 Q. Now, you told the jury that Gold discloses
11:46 17 that the lateral speed hold loop is automatically
11:46 18 engaged, right?

11:46 19 A. That's right.

11:46 20 Q. And what you pointed to was this box on the
11:46 21 left that references a pitch --

11:46 22 MR. RICH: Well, can we have the next
11:46 23 slide, please?

11:46 24 There we go.

11:46 25 BY MR. RICH:

11:46 1 Q. You pointed to this on the left that has the
11:46 2 roll axis, right?

11:46 3 A. That's right.

11:46 4 Q. Now, that velocity hold that you're pointing
11:46 5 to on the left happens after the velocity stabilization
11:46 6 mode is engaged, correct?

11:46 7 A. It happens when you let go of the stick,
11:47 8 correct?

11:47 9 Q. Well, the velocity stabilization has to be
11:47 10 engaged first before you can get into the velocity
11:47 11 hold, right?

11:47 12 A. Yeah. All -- the autopilot has to be on when
11:47 13 you're flying the helicopter for any of this to
11:47 14 function. That's right.

11:47 15 Q. Right. For any of the things that you're
11:47 16 pointing to, to function, autopilot has to be on first?

11:47 17 A. Yeah. When you take off with the helicopter,
11:47 18 you've got to turn that on.

11:47 19 Q. Now, you didn't actually show the jury the
11:47 20 full context of this Gold reference, did you?

11:47 21 A. I'm not sure what you mean. I didn't show
11:47 22 them the entire article, no.

11:47 23 MR. RICH: Can we have Defendants'
11:47 24 Exhibit 396, please?

11:47 25 Go to Page 421, please. And just under

11:47 1 "Velocity Stabilization/Hover Hold" on the left-hand
11:47 2 side.

11:47 3 BY MR. RICH:

11:47 4 Q. Okay. The velocity stabilization mode and
11:48 5 hover hold mode.

11:48 6 Do you see that?

11:48 7 A. I do.

11:48 8 Q. This is the part that you didn't show the
11:48 9 jury, right?

11:48 10 A. I talked about it. I didn't show them this
11:48 11 text. Right.

11:48 12 Q. All right. What's the --

11:48 13 MR. RICH: Can I have highlighting on the
11:48 14 first sentence, please?

11:48 15 BY MR. RICH:

11:48 16 Q. Sir, the velocity stabilization mode is
11:48 17 engaged manually by pressing the velocity hover hold
11:48 18 switch.

11:48 19 Do you see that?

11:48 20 A. I do.

11:48 21 Q. And so you have to hit a button to engage
11:48 22 velocity stabilization mode, right?

11:48 23 A. Yeah. That's the button that turns on the
11:48 24 whole autopilot system.

11:48 25 Q. Right. And without hitting that button, you

11:48 1 can't engage any of the stuff that you pointed to?

11:48 2 A. Yeah. If you don't turn on autopilot, none of
11:48 3 these cool functions function. It's just a manual
11:48 4 helicopter.

11:48 5 MR. RICH: Objection, nonresponsive.

11:48 6 THE COURT: Sustained.

11:48 7 BY MR. RICH:

11:48 8 Q. Doctor, you have to first hit a button before
11:48 9 any of the things that you pointed to are engaged,
11:48 10 correct?

11:48 11 A. That's right.

11:49 12 MR. RICH: May I have Figure 1 of Gold,
11:49 13 please?

11:49 14 BY MR. RICH:

11:49 15 Q. This is Figure 1 that you showed the jury,
11:49 16 right?

11:49 17 A. Yes. It is.

11:49 18 Q. At the bottom it says "longitudinal control
11:49 19 laws," right?

11:49 20 A. Yes. It does.

11:49 21 Q. And this is what you said teaches the
11:49 22 longitudinal loop design in Claim 13, right?

11:49 23 A. Yes.

11:49 24 Q. You didn't show the jury any similar figure
11:49 25 that talks about loops for the lateral loop design, did

11:49 1 you?

11:49 2 A. No. It would work the same way, of course.

11:49 3 But you're right. Okay. Yes to your question. No, I

11:49 4 didn't show them another figure.

11:49 5 MR. RICH: Objection, nonresponsive.

11:49 6 THE COURT: Overruled.

11:49 7 BY MR. RICH:

11:49 8 Q. Sir, you didn't -- you did not show the jury

11:49 9 any loops like this one in Figure 1 for the lateral

11:50 10 loop design?

11:50 11 A. That's correct.

11:50 12 Q. And you didn't show the jury any loops like

11:50 13 this one in Figure 1 for the directional loop design,

11:50 14 correct?

11:50 15 A. That's correct.

11:50 16 Q. The bottom line, sir, is manual engagement is

11:50 17 the opposite of automatic engagement, isn't it?

11:50 18 A. I disagree with your use of the word

11:50 19 "engagement" twice because there are different things

11:50 20 we're engaging. So I disagree.

11:50 21 Q. You disagree that manually pressing a button

11:50 22 is the opposite of automatic engagement?

11:50 23 A. You're using the word "engagement" -- well,

11:50 24 you said "pressing a button" this time. Manually

11:50 25 pressing a button is completely different from letting

11:50 1 go of the stick.

11:50 2 MR. RICH: May I have the title of Gold,
11:50 3 please, first page?

11:50 4 Can you blow up the title, please?

11:50 5 BY MR. RICH:

11:50 6 Q. You see the title, sir?

11:50 7 A. I do.

11:51 8 Q. It says "Selectable Control Modes"?

11:51 9 A. It does.

11:51 10 Q. Now, you talked some about how this came from
11:51 11 Mr. Gold and a guy from Boeing.

11:51 12 Do you remember that?

11:51 13 A. I do.

11:51 14 Q. You didn't go talk to Mr. Gold about his
11:51 15 selectable control modes, did you?

11:51 16 A. I didn't talk to Mr. Gold. I've never met the
11:51 17 gentleman.

11:51 18 Q. And you didn't go talk to the other gentleman,
11:51 19 Mr. Dryfoos, either, did you?

11:51 20 A. I've never met Mr. Dryfoos either.

11:51 21 Q. Did you know that this paper says it's the --
11:51 22 gives the history of what happened?

11:51 23 A. You mean the Comanche project?

11:51 24 Q. The paper talks about how this is the
11:51 25 preliminary design of the selectable modes, and it was

11:51 1 done at Sikorsky, right?

11:51 2 A. Yes.

11:51 3 Q. Pretty good aerospace company, right?

11:51 4 A. Sure.

11:51 5 Q. A lot of engineers there?

11:51 6 A. Yes.

11:51 7 Q. And then it talks about how there was some
11:51 8 pilot evaluations at Sikorsky and the control laws got
11:51 9 transferred to Boeing.

11:51 10 Do you see that?

11:51 11 A. Yes.

11:51 12 Q. Another pretty good aerospace company with a
11:52 13 lot of engineers, right?

11:52 14 A. Absolutely.

11:52 15 Q. And then the final design went back to
11:52 16 Sikorsky.

11:52 17 Did you see that?

11:52 18 A. Okay.

11:52 19 Q. And so after all this back and forth between
11:52 20 Sikorsky and Boeing, all those good engineers only
11:52 21 described in the Gold paper that you have to first hit
11:52 22 a button before you can do all the things that you
11:52 23 pointed to?

11:52 24 A. That's required in all aircraft, yeah.

11:52 25 Q. Now, let's quickly turn to the Frink

11:52 1 reference. This is the one that you're saying to the
11:52 2 jury that they should use to take Mr. Harris' patent
11:52 3 away, right?

11:52 4 A. No. I didn't say they should take his patent
11:52 5 away. That's not fair.

11:52 6 Q. To be clear, sir, Mr. Frink is not Mr. Frank
11:52 7 Wang at DJI, right? Two separate people?

11:52 8 A. I'm sorry?

11:52 9 Q. Mr. Frink is not Mr. Frank Wang at DJI, right?

11:52 10 A. I think the inventor's name is Bentley Frink.
11:52 11 His last name is Frink, F-r-i-n-k.

11:52 12 Q. You understand that Claim 1 says you have to
11:53 13 have a calculation of velocity of the aircraft relative
11:53 14 to the reference vehicle, right?

11:53 15 A. I do.

11:53 16 Q. There has to be a calculation, right?

11:53 17 A. Yes.

11:53 18 MR. RICH: Can I have Dr. Nourbakhsh's
11:53 19 Slide 88, please?

11:53 20 BY MR. RICH:

11:53 21 Q. All right, Doctor.

11:53 22 You told the jury that Frink -- the first line
11:53 23 of Frink at -- in the center of this page.

11:53 24 Do you see that?

11:53 25 The unmanned aerial vehicle can be programmed

11:53 1 to fly in a pattern relative to the marine vessel.

11:53 2 You see that, right?

11:53 3 A. I do see that.

11:53 4 Q. That's two lines out of Frink, right?

11:53 5 A. Two lines of text, yes.

11:53 6 Q. Two lines of text.

11:53 7 And you told the jury that Frink teaches
11:53 8 calculating a calculated velocity of the aircraft
11:53 9 relative to the reference vehicle based on those two
11:54 10 lines because it's programmed to fly in a pattern,
11:54 11 right?

11:54 12 A. I think there's a whole lot of places where
11:54 13 Frink talks about the oval pattern. It's not just
11:54 14 those two lines. That's not fair.

11:54 15 Q. But what you're pointing to is a pattern,
11:54 16 correct?

11:54 17 A. I'm using a pattern, yes.

11:54 18 Q. And the two lines that you pointed to on this
11:54 19 slide for the calculation, the word "calculate" does
11:54 20 not appear, does it?

11:54 21 A. No. The word "calculate" is not in that
11:54 22 sentence.

11:54 23 Q. In those two lines that you're relying on, the
11:54 24 word "calculation" does not appear, correct?

11:54 25 A. Neither of those two words is in that

11:54 1 sentence.

11:54 2 Q. In those two sentences that you're pointing
11:54 3 to -- or that one sentence that you're pointing to, the
11:54 4 word "velocity" does not appear, right?

11:54 5 A. That sentence doesn't have the word
11:54 6 "velocity," correct.

11:54 7 Q. And now, you remember Claim 7 of the '909
11:54 8 patent. It talks about calculating position, right?

11:54 9 A. That's right.

11:54 10 Q. And so in the lines that you're relying on
11:54 11 here on this slide, those lines don't say calculate a
11:55 12 position, do they?

11:55 13 A. The word "calculated position" isn't in this
11:55 14 sentence.

11:55 15 Q. Frink mentions in that line programming,
11:55 16 right?

11:55 17 A. That sentence doesn't have the word -- oh,
11:55 18 programmed, yes. It has the word "programmed."

11:55 19 Q. Doesn't say the word "calculation," right?

11:55 20 A. That's right. The word "calculation" is still
11:55 21 not in that sentence.

11:55 22 Q. Sir, patents are important property rights,
11:55 23 aren't they?

11:55 24 A. Absolutely.

11:55 25 Q. Protecting your patents in court is sometimes

11:55 1 necessary, right?

11:55 2 A. I think so.

11:55 3 Q. Patents are so important that the whole basis
11:55 4 for them is in the Constitution, right?

11:55 5 A. That's right.

11:55 6 Q. Now, I want to end close to where we started,
11:55 7 sir. You remember where we began this
11:55 8 cross-examination with the DJI patents?

11:55 9 A. Yes.

11:55 10 Q. We started with all those DJI patents that
11:55 11 you're not saying invalidate Mr. Harris' and
11:55 12 Mr. Christensen's patents?

11:55 13 A. That's right.

11:55 14 Q. And you've said you found those doing a Google
11:56 15 search, didn't you?

11:56 16 A. I did.

11:56 17 Q. Probably took you about a minute to look up
11:56 18 those patents, right?

11:56 19 A. I think it took a lot longer than a minute,
11:56 20 but yes.

11:56 21 Q. You did a --

11:56 22 A. Took some time, let's say.

11:56 23 Q. You did an assignee search for DJI, right?

11:56 24 A. I did an assignee search for DJI, then I
11:56 25 questioned the number. So I tried it various ways

11:56 1 trying to figure out why am I getting such a huge
11:56 2 number of hits.

11:56 3 MR. RICH: Objection, nonresponsive.

11:56 4 THE COURT: Overruled.

11:56 5 BY MR. RICH:

11:56 6 Q. Sir, you were in the courtroom when we played
11:56 7 the depositions of all those DJI engineers that aren't
11:56 8 here, correct?

11:56 9 A. I was.

11:56 10 Q. And you heard that not a single one of them
11:56 11 Googled Textron's patents, correct?

11:56 12 A. That's right. They say that -- they said they
11:56 13 hadn't read the patent.

11:56 14 Q. Doctor, I think I'm missing somebody here.
11:56 15 There's no Mr. Wang in this courtroom, is
11:56 16 there?

11:56 17 A. I don't know what he looks like, but I'm
11:56 18 pretty sure you're right. He's not in here.

11:56 19 Q. Thank you.

11:57 20 THE COURT: Why don't we take our lunch
11:57 21 break, unless it's very short?

11:57 22 MR. SCHLESINGER: It'll be a couple of
11:57 23 minutes.

11:57 24 THE COURT: No. Let's go ahead then.

11:57 25 Let me ask you all: Do y'all want to

11:57 1 wrap this gentleman up or do you want to go to lunch?

11:57 2 I'm happy to do either.

11:57 3 JURY: Wrap it up.

11:57 4 THE COURT: Okay. Very good.

5 Please.

11:57 6 THE WITNESS: Wrap it up.

11:57 7 REDIRECT EXAMINATION

11:57 8 BY MR. SCHLESINGER:

11:57 9 Q. Dr. Nourbakhsh, I want to start with some of
11:57 10 the questions you were initially asked about.

11:57 11 And I want to be very clear: What you get
11:57 12 paid, does that depend on whether DJI wins or loses?

11:57 13 A. No.

11:57 14 Q. Do you offer any opinions you don't agree
11:57 15 with?

11:57 16 A. Never.

11:57 17 Q. Whose opinions are you offering?

11:57 18 A. My own.

11:57 19 Q. And you understand Textron's who filed this
11:57 20 lawsuit and that's why we're here?

11:57 21 A. Of course. Yes.

11:57 22 Q. Would you be surprised to know or learn that
11:58 23 Textron choose who they deposed?

11:58 24 A. No. That's not surprising to me.

11:58 25 Q. Would you be surprised to know that Textron

11:58 1 never asked to talk to Mr. Frink?

11:58 2 A. I'm a little surprised.

11:58 3 Q. You have a drone right there with you, and you
11:58 4 have the remote control.

11:58 5 Can you please hold both of those?

11:58 6 A. Sure.

11:58 7 Q. Which one's the aircraft?

11:58 8 A. That's the aircraft.

11:58 9 Q. Does it have any controllers?

11:58 10 A. No.

11:58 11 Q. You were also asked about missing code that
11:58 12 you explained yesterday -- or earlier where it's
11:58 13 irrelevant.

11:58 14 Do you recall that?

11:58 15 A. Yes.

11:58 16 Q. Now, there are a lot of claims counsel was
11:58 17 saying what the code was about.

11:58 18 Has the other counsel seen the code?

11:58 19 A. No.

11:58 20 Q. Have you?

11:58 21 A. No.

11:58 22 Q. How much code did you review?

11:58 23 A. I counted the lines and it sounds insane.

11:59 24 It's a little bit more than 2 million lines of code.

11:59 25 That's not the missing code. That's the code that we

11:59 1 all saw and read and used.

11:59 2 Q. Is that the same code that Textron and
11:59 3 Dr. Michalson had access to?

11:59 4 A. Yes.

11:59 5 Q. Or Textron's counsel?

11:59 6 Now, did counsel show you what the application
11:59 7 that he's referring to actually stated?

11:59 8 A. No.

11:59 9 Q. Let's look at that.

11:59 10 MR. SCHLESINGER: Could we pull up
11:59 11 Plaintiff's Exhibit 106?

11:59 12 And if we could go to page -- I believe
11:59 13 it's Page 8, and let's look at No. 6.

14 BY MR. SCHLESINGER:

11:59 15 Q. Do you remember being asked about
11:59 16 attitude-related code?

11:59 17 A. Yes.

11:59 18 MR. SCHLESINGER: If we could highlight
11:59 19 that?

11:59 20 BY MR. SCHLESINGER:

12:00 21 Q. Do you have an understanding of what this is
12:00 22 describing?

12:00 23 A. I do.

12:00 24 Q. What is that?

12:00 25 A. This is describing the ability to have stable

12:00 1 flight so it'll be able to deal with rapid changes that
12:00 2 you need to so that you cannot crash.

12:00 3 Q. When it says "attitude sensing and
12:00 4 determination," what is that referring to?

12:00 5 A. That's the accelerometers and inertial
12:00 6 guidance systems we talked about before. It means
12:00 7 those little chips that let it know rapidly how fast
12:00 8 it's going left/right and getting twisted by the wind,
12:00 9 for example.

12:00 10 Q. How is that related to Claim 13?

12:00 11 A. It's completely not related to Claim 13.
12:00 12 Claim 13's not about this stuff.

12:00 13 Q. Are you aware that the relevancy determination
12:00 14 during discovery is much broader than whether
12:00 15 something's infringed?

12:00 16 A. Yes.

12:00 17 Q. Now, you were also asked about whether the
12:00 18 drone that they were testing was holding a velocity of
12:00 19 zero or holding a position.

12:00 20 Do you recall that?

12:00 21 A. Yes.

12:00 22 Q. What is it doing?

12:01 23 A. It's holding a position.

12:01 24 Q. How can you be so certain?

12:01 25 A. Because when I pull it away, it uses velocity

12:01 1 to get back to that position.

12:01 2 Q. But what about velocity errors? How do you
12:01 3 know that's not just what's happening?

12:01 4 A. It's actually trying on purpose to get back to
12:01 5 where it was. You saw how angry it gets when I pull on
12:01 6 it. And I'm careful with my finger not to get near the
12:01 7 propeller blades because I want to keep my fingers.

12:01 8 That's why I use the one that has this big
12:01 9 long stem on it, because I can pull on that and stay
12:01 10 away from the propeller.

12:01 11 Q. Now, how do you -- if you want to go
12:01 12 somewhere, from Position A to Position B, how do you
12:01 13 accomplish that with a drone?

12:01 14 A. You use control software that drives it
12:01 15 forward and then stops.

12:01 16 Q. Now -- and if you're in position mode, what's
12:01 17 controlling? Is it position? Is it velocity? Is it
12:01 18 attitude?

12:01 19 A. It's just the position.

12:01 20 Q. And how can you be so confident?

12:01 21 A. Because I've seen the code and because I can
12:01 22 use the machine, and they agree.

12:01 23 Q. And did Dr. Michalson have access to that same
12:01 24 code?

12:01 25 A. Yes.

12:01 1 Q. Now, you heard a lot of talk about hovering
12:02 2 having to be enabled in the Gold reference.

12:02 3 Do you recall that?

12:02 4 A. I do.

12:02 5 Q. And I believe you had something to explain.

12:02 6 Could you please explain what you're referring
12:02 7 to?

12:02 8 A. Sure. Counsel was asking me about pushing
12:02 9 this button and manual enabling versus automatically
12:02 10 enabling.

12:02 11 The button is an autopilot button that every
12:02 12 aircraft has to have. Because if something goes wrong
12:02 13 with the autopilot, you have to be able to turn it off.
12:02 14 So it has to have an on/off switch.

12:02 15 Once you've turned it on, then half an hour
12:02 16 later, an hour later, whenever you want, you're flying.
12:02 17 And when you let go of that control stick, it
12:02 18 automatically enables the mode.

12:02 19 The whole point of the claim is what happens
12:02 20 when you let go of the stick. So when we're saying
12:02 21 automatically engaging, we're talking about what
12:02 22 happens when you let go of the stick. We're not
12:02 23 talking about the button you use to turn on and off the
12:02 24 autopilot mode when you take off in the helicopter and
12:03 25 go for a ride.

12:03 1 Q. Are you aware that the claims must be read the
12:03 2 same way for both the infringement and the validity
12:03 3 analysis?

12:03 4 A. Yes.

12:03 5 Q. Let's take a Phantom 4. That's accused in
12:03 6 this case, right?

12:03 7 A. Yeah.

12:03 8 Q. Will the Phantom 4 hover if it's not in the
12:03 9 normal mode?

12:03 10 A. No. It has modes in which it doesn't hover.

12:03 11 Q. And so for the Phantom 4 to hover, you have to
12:03 12 actually be in a mode that enables the hovering; is
12:03 13 that right?

12:03 14 A. Yes.

12:03 15 MR. SCHLESINGER: May I approach the
12:03 16 witness, Your Honor?

12:03 17 THE COURT: Sure.

12:03 18 BY MR. SCHLESINGER:

12:03 19 Q. What are you holding?

12:03 20 A. The Phantom 4 remote controller.

12:03 21 Q. Are there selections available on that?

12:03 22 A. Yes.

12:03 23 Q. What does that selection do?

12:03 24 A. It moves between modes that hover and modes
12:03 25 that don't.

12:03 1 Q. And so if it's not in the correct mode, will
12:04 2 the Phantom 4 hover?

12:04 3 A. No.

12:04 4 Q. Did you hear Dr. Michalson talk about this at
12:04 5 all?

12:04 6 A. No.

12:04 7 Q. Now, let's move on to the '909 patent.

12:04 8 To follow a fixed position behind a moving
12:04 9 object, the drone needs to change its speed or
12:04 10 velocity; is that right?

12:04 11 A. Yes.

12:04 12 Q. Now, the '909 patent, that was about velocity
12:04 13 control?

12:04 14 A. Yes.

12:04 15 Q. And there is a reference to Claim 7 about
12:04 16 velocity or position control, but do you remember the
12:04 17 wherein clause?

12:04 18 A. Vaguely.

12:04 19 MR. SCHLESINGER: Let's pull up Claim 7,
12:04 20 and if we could, go to the last limitation.

12:04 21 BY MR. SCHLESINGER:

12:05 22 Q. When did DJI drones with either Follow Me or
12:05 23 ActiveTrack ever determine what relative position to
12:05 24 follow the object?

12:05 25 A. After you're up in the sky, taken off already

12:05 1 and you're choosing the target.

12:05 2 Q. Is that prior to flight?

12:05 3 A. No.

12:05 4 Q. What does the claim require?

12:05 5 A. Prior to flight.

12:05 6 Q. Now, did anything that you heard today change
12:05 7 your -- or got crossed on today change your opinions?

12:05 8 A. No.

12:05 9 Q. How confident are you?

12:05 10 A. I'm completely confident.

12:05 11 Q. Thank you.

12:05 12 MR. RICH: One question, Your Honor.

12:05 13 RECROSS-EXAMINATION

12:05 14 BY MR. RICH:

12:05 15 Q. On that last point about the wherein clause in
12:05 16 the '909 patent, DJI's code includes the algorithm
12:05 17 that's programmed in to select the position and
12:05 18 velocity, doesn't it?

12:05 19 A. Yes. It has programming.

12:06 20 Q. Thank you.

12:06 21 MR. SCHLESINGER: Nothing further,
12:06 22 Your Honor.

12:06 23 THE COURT: Thanks for being here,
12:06 24 Doctor.

12:06 25 Ladies and gentlemen, we will take our

12:06 1 recess, lunch recess. If you would be back by 1:15 or
12:06 2 1:20, we'll start at 1:30.

12:06 3 THE BAILIFF: All rise.

12:06 4 (Jury exited the courtroom.)

12:06 5 THE COURT: You may be seated.

6 You may step down, sir, and you're
12:06 7 excused. Thank you for being here.

12:06 8 Anything we need to take up?

12:06 9 MR. SCHLESINGER: Yes. There's one
12:06 10 thing, Your Honor.

12:06 11 I didn't want to interrupt counsel during
12:06 12 his questioning, but he read off the wrong standard of
12:06 13 obviousness that we -- Your Honor ruled on this morning
12:06 14 to the jury, and so we think it would be appropriate to
12:06 15 update the jury instructions.

12:06 16 He told the jury that obviousness
12:07 17 can't -- means that something's missing from the claim,
12:07 18 and that's exactly what Your Honor ruled against this
12:07 19 morning.

12:07 20 THE COURT: Well, the way he said it I
12:07 21 didn't think was incorrect, and maybe I just misheard
12:07 22 the way he said it.

12:07 23 MR. SCHLESINGER: Can I read it to you?

12:07 24 THE COURT: Sure.

12:07 25 MR. SCHLESINGER: You use obviousness

12:07 1 when the reference that you're relying on doesn't
12:07 2 actually teach all of the elements of the claim.

12:07 3 That's the same issue that we had this
12:07 4 morning.

12:07 5 MR. RICH: And I moved on right after
12:07 6 that.

12:07 7 MR. SCHLESINGER: I don't think he gave
12:07 8 me an answer, if I remember, but...

12:07 9 THE COURT: Yeah. I can't imagine out of
12:07 10 all the jury heard, that that had any impact on them.

12:07 11 MR. SCHLESINGER: Okay.

12:07 12 THE COURT: I know it matters to you and
12:07 13 everyone on your side, but I would be willing to bet
12:07 14 none of the jury remembers that particular question out
12:07 15 of the give and take over the course of the last three
12:08 16 hours.

12:08 17 So I will respectfully overrule your
12:08 18 request.

12:08 19 So the defendant has their -- you have
12:08 20 your damages expert?

12:08 21 MR. SCHLESINGER: Yes, Your Honor.

12:08 22 THE COURT: And then you're done?

12:08 23 MR. SCHLESINGER: Yes, Your Honor.

12:08 24 THE COURT: Then we have your rebuttal
12:08 25 expert?

12:08 1 MR. RICH: Yes, Your Honor.

12:08 2 THE COURT: And we're done?

12:08 3 Now, I think what my plan -- what I would
12:08 4 prefer to do to get the jury out of here, but I'll need
12:08 5 your agreement, is we've talked about when you'll do
12:08 6 the directed verdict. I would prefer when you all are
12:08 7 done with the evidence to go ahead and move right
12:08 8 into -- well, no. I guess we need to take up whether
12:08 9 or not I'm going to submit willfulness to the jury. So
12:08 10 I guess I need to take that up.

12:08 11 We'll take that up, and then we'll --
12:08 12 I'll read the jury charge. So that will be the plan
12:08 13 for the afternoon. Okay.

12:08 14 MR. SCHLESINGER: Thank you, Your Honor.

12:08 15 THE COURT: Thank you all.

12:08 16 THE BAILIFF: All rise.

12:08 17 (Recess taken.)

01:29 18 THE BAILIFF: All rise.

01:29 19 THE COURT: Please remain standing for
01:29 20 the jury.

01:29 21 (Jury entered the courtroom.)

01:29 22 THE COURT: Thank you. You may be
01:29 23 seated.

01:29 24 Counsel, you may call your next witness.

01:29 25 MS. KESTLE: DJI calls as its next

01:29 1 witness Mr. Todd Schoettelkotte.

01:29 2 (The witness was sworn.)

01:29 3 DIRECT EXAMINATION

01:29 4 BY MS. KESTLE:

01:30 5 Q. Good afternoon. Will you please introduce
01:30 6 yourself to the jury?

01:30 7 A. Good afternoon. My name is William Todd
01:30 8 Schoettelkotte. I go by Todd.

01:30 9 Q. And can you tell the jury a little bit more
01:30 10 about yourself?

01:30 11 A. I'm from Houston, Texas. I'm married to my
01:30 12 wonderful wife. We've been together for, at this
01:30 13 point, 27 years. I've got two -- I'll call them grown
01:30 14 children, but are they ever really grown? I don't
01:30 15 know. But they're wonderful in their own right.

01:30 16 I've got a daughter who's 25, and my son is
01:30 17 23. Both are proud graduates of Texas A&M.

01:30 18 Q. I think we heard a little bit earlier that you
01:30 19 played college basketball. Can you tell us a little
01:30 20 bit about that?

01:30 21 A. Yeah. I did. It's maybe not as exciting as
01:31 22 maybe other stories, but I did really enjoy it. I
01:31 23 played at Purdue and Rice in Houston. I played in the
01:31 24 early '90s. It would have been back in the time of the
01:31 25 old Southwest Conference. So we came up here to Waco

01:31 1 on a couple of occasions.

01:31 2 I think we maybe split, but it was always
01:31 3 tough when we came up. It was -- yeah. It was a good
01:31 4 time to play basketball. I actually ran into Shaquille
01:31 5 O'Neal, and he and I played against each other. As you
01:31 6 might appreciate, it didn't end all that well for me,
01:31 7 but it was certainly an experience. I think overall
01:31 8 I'm just grateful to have done it.

01:31 9 Q. Did you prepare any slides to help share your
01:31 10 analysis today?

01:31 11 A. I did, yes.

01:31 12 MS. KESTLE: Could we -- thank you very
01:31 13 much.

14 BY MS. KESTLE:

01:31 15 Q. Let's start at the very beginning. Where do
01:31 16 you work?

01:31 17 A. I work at a company called J.S. Held,
01:31 18 Incorporated.

01:31 19 Q. And what is J.S. Held, Incorporated?

01:31 20 A. It's a multi-dimensional consulting firm which
01:31 21 essentially means that they have many practice areas.
01:31 22 The practice area that I'm in is the area that values
01:32 23 intellectual property such as patents, trademarks,
01:32 24 trade secrets, copyrights, things of that nature.

01:32 25 Q. And what position do you hold at J.S. Held?

01:32 1 A. I'm a senior managing director, and I'm
01:32 2 responsible for running the Houston office.

01:32 3 Q. Okay. Will you tell the jury a little bit
01:32 4 about your work as a senior managing director?

01:32 5 A. So I do a number of things. As I mentioned,
01:32 6 I'm responsible for the office which basically means
01:32 7 responsible for the people.

01:32 8 One of the things I guess I take pride in is,
01:32 9 having done this work for a long time, I enjoy
01:32 10 mentoring those who are kind of coming in. So maybe
01:32 11 teaching them the skills and the crafts to do what we
01:32 12 do, as well as assisting them in their personal growth.

01:32 13 I also work heavily with clients in the
01:32 14 valuation of their intellectual property. Oftentimes
01:32 15 that valuation is done either for a commercial sale
01:32 16 when one company wants to sell something to another
01:32 17 company or perhaps in a litigation like we are here,
01:33 18 where we'll value that technology for purposes of
01:33 19 identifying what a potential harm might be.

01:33 20 Q. And how long have you been working on the
01:33 21 valuation of intellectual property and analyzing
01:33 22 damages and business disputes?

01:33 23 A. Well, it bookends my kids. So I said I've got
01:33 24 two kids, and I started before they came to the house,
01:33 25 and I'm still working, and they're gone from the house.

01:33 1 So at this point, just about 30 years.

01:33 2 Q. Okay. And have you ever assisted companies in
01:33 3 licensing negotiations as a financial consultant?

01:33 4 A. I have. It's something that I do quite often.
01:33 5 And generally how that works is we will be contacted by
01:33 6 companies who have intellectual property assets and
01:33 7 they're looking to, what we would say, monetize them.

01:33 8 And what I mean by that is they're looking to
01:33 9 either value them for a potential sale or they're
01:33 10 looking to license them to someone else, and so they
01:33 11 will come to us and ask us how we might help them with
01:33 12 that.

01:33 13 It generally involves studying the technology,
01:33 14 studying the various financial considerations that
01:34 15 might go with a license. Everything from the
01:34 16 competitive status in the market to the importance of
01:34 17 the technology, any licensing that has been done in the
01:34 18 market that we might be able to use as a proxy for what
01:34 19 the technology is worth.

01:34 20 Kind of like you would think if you were going
01:34 21 to buy a house and you looked at other houses that were
01:34 22 similar that might have a similar price, same number of
01:34 23 bedrooms, a garage, three bathrooms, those kind of
01:34 24 things. Again, that's called the market approach.

01:34 25 Q. And will you tell the jury a little bit about

01:34 1 your education and how it allows you to do the work
01:34 2 that you do?

01:34 3 A. Yes. I feel very fortunate I had the
01:34 4 opportunity to study at both Purdue and Rice. I
01:34 5 studied in the business schools at both universities.
01:34 6 Ultimately I earned my bachelor's in Business
01:34 7 Management. The focus there was on courses in
01:34 8 accounting, economics, finance, statistics.

01:34 9 I then stayed at Rice and earned my master's
01:34 10 in Accounting.

01:35 11 Ultimately what those skills allowed me to do
01:35 12 is it's really something called forensic accounting,
01:35 13 where you are really understanding the ebbs and flows
01:35 14 of financial information and how revenues and costs
01:35 15 interact together, how pricing matters, competition in
01:35 16 the marketplace. All of those things kind of wound up
01:35 17 in one as part of my education.

01:35 18 Q. Do you have any professional certifications or
01:35 19 memberships?

01:35 20 A. I do. I'm a certified public accountant in
01:35 21 the State of Texas. It's something that most people
01:35 22 think about in terms of doing taxes. And I guess I
01:35 23 would say that there's many CPAs out there like myself
01:35 24 who are focused on, as I mentioned, the forensic
01:35 25 accounting aspect of assisting companies in either

01:35 1 valuing things or helping them understand what the
01:35 2 value of an asset is or even intellectual property.

01:35 3 So part of my role is to serve as a CPA and
01:35 4 follow the guidelines of all things that CPAs are
01:36 5 required to do as part of their normal ordinary course.

01:36 6 Q. I think you mentioned mentorship a little bit
01:36 7 earlier as your role as a senior managing director.
01:36 8 Have you ever taught any classes related to your work?

01:36 9 A. I have. So one of the things that's
01:36 10 oftentimes very fun to do, I really certainly enjoy it,
01:36 11 is working with young people. Certainly not only in my
01:36 12 office, but outside of my office. I've had the
01:36 13 opportunity to teach at Georgetown in D.C., the
01:36 14 Chicago-Kent in Chicago, of course, John Marshall in
01:36 15 Chicago, as well as the University of Oregon on topics
01:36 16 that would include accounting, finance topics such as
01:36 17 valuation as well as how to calculate patent damages.

01:36 18 Q. And during your almost 30-year career, have
01:36 19 you ever received any recognition for your work valuing
01:36 20 patents, trademarks and other forms of intellectual
01:36 21 property?

01:36 22 A. You know, I have. It's one of those things,
01:36 23 maybe it reminds me of being an athlete. You work
01:37 24 really hard and you hope that you do well and somebody
01:37 25 recognizes you. In your career, you do the same thing.

01:37 1 I'm fortunate, again, to be recognized by Intellectual
01:37 2 Asset Magazine as a global leader and a leading patent
01:37 3 damages expert for my work with patents and patent
01:37 4 valuation.

01:37 5 Q. And have you testified before at a trial just
01:37 6 like this one for cases involving damages for
01:37 7 intellectual property and business disputes?

01:37 8 A. I have. I've had the opportunity to testify
01:37 9 in district courts, like this one, as well as state
01:37 10 courts, and also at the ITC, which is the International
01:37 11 Trade Commission, which regulates what products come in
01:37 12 and out of the U.S. And they also look at patent
01:37 13 coverage and things like that. I've also been here in
01:37 14 Waco before.

01:37 15 Q. And just as part of your work experience, have
01:37 16 you ever worked on a case that involved drones before?

01:37 17 A. I have. So one of the cases that I have
01:37 18 worked on was a case for the Drone Racing League.
01:37 19 Sometimes it's called DRL. And if I was to simplify
01:38 20 it, DRL, or Drone Racing League, it's a little bit like
01:38 21 NASCAR for drones. It's a closed course inside where
01:38 22 professional drone racers race an obstacle course.

01:38 23 There was a shareholder dispute for the owners
01:38 24 of the Drone Racing League, and my job in the case was
01:38 25 to value the enterprise and all the assets and then

01:38 1 determine what portion of the value would have been
01:38 2 attributable to that shareholder in the dispute.

01:38 3 MS. KESTLE: Your Honor, at this time DJI
01:38 4 would offer Mr. Todd Schoettelkotte as an expert in the
01:38 5 valuation of intellectual property and patent damage
01:38 6 awards.

01:38 7 MR. PANKRATZ: No objections.

01:38 8 THE COURT: He'll be admitted as such.

01:38 9 BY MS. KESTLE:

01:38 10 Q. Let's talk a little bit more about why you're
01:38 11 here today.

01:38 12 Mr. Schoettelkotte, what were you asked to do
01:38 13 for this case?

01:38 14 A. I was asked to assist the jury, based upon my
01:38 15 review and assessment of the work of Mr. Andrien and
01:38 16 his report, and also to prepare my own analysis of
01:38 17 damages in this case to the extent that the jury were
01:38 18 to find the two patents valid and infringed.

01:39 19 Q. And were you here for the testimony of
01:39 20 Dr. Nourbakhsh?

01:39 21 A. I was, yes.

01:39 22 Q. Okay. And would you please remind the jury of
01:39 23 his conclusions regarding infringement in this case?

01:39 24 A. My understanding is Dr. Nourbakhsh arrived at
01:39 25 the conclusions that the DJI drones do not infringe the

01:39 1 '909 and '752 patents, and also that the '909 and '752
01:39 2 patents are invalid.

01:39 3 Q. You answered my next question. So what does
01:39 4 all of that mean from a damages perspective?

01:39 5 A. To the extent that the patents are either not
01:39 6 valid or they are not infringed, there would be no
01:39 7 damages in this case. And so my role as a damages
01:39 8 expert, and frankly Mr. Andrien's role as a damages
01:39 9 expert, would not be necessary. Because without
01:39 10 validity and without infringement, there can be no
01:39 11 damages.

01:39 12 Q. So if no damages are owed, why are you sitting
01:39 13 here today?

01:39 14 A. Well, because I understand that the way the
01:40 15 process works for ourselves in providing evidence for
01:40 16 the jury to consider is it all comes out at once, both
01:40 17 information regarding validity and infringement or
01:40 18 invalidity and noninfringement as well as damages. It
01:40 19 all comes out at once, and there's no break in the
01:40 20 middle.

01:40 21 So the jury has to make a determination at
01:40 22 once, once all the facts are in, as to both validity
01:40 23 and infringement and damages. And so I'm here to
01:40 24 provide my opinion, as Mr. Andrien was, to make sure
01:40 25 that the jury has everything they need to make an

01:40 1 informed decision.

01:40 2 Q. And can you remind the jury how much Textron
01:40 3 and Mr. Andrien are asking for?

01:40 4 A. \$367 million.

01:40 5 Q. Okay. And have you been able to evaluate that
01:40 6 number?

01:40 7 A. I have, yes.

01:40 8 Q. Okay. And what did you conclude?

01:40 9 A. It's my opinion that that is a significantly
01:41 10 overstated ask for damages in this case.

01:41 11 Q. Okay. And can you quickly walk us through
01:41 12 some of the information you've reviewed as part of your
01:41 13 analysis?

01:41 14 A. So one of the first things I do is I review
01:41 15 the '909 and '752 patents. I'm not a technical expert,
01:41 16 but I try to gain as much information as I can. You'll
01:41 17 see in a moment that I discussed the technology with
01:41 18 Dr. Nourbakhsh. So it gives me the opportunity to ask
01:41 19 questions and get his perspective as an expert on what
01:41 20 those patents mean.

01:41 21 I also review the legal filings in the case,
01:41 22 not as a lawyer would, but just to inform me of what
01:41 23 the parties are alleging in the case.

01:41 24 I also reviewed Textron and DJI documents that
01:41 25 were produced in this case. They're provided to me by

01:41 1 counsel. I don't work directly with the companies.
01:41 2 Counsel gives me information and I ask for information,
01:41 3 and that information then comes to me for me to review.

01:41 4 In this case, what I really tried to do is
01:41 5 look at documents from both Textron as well as DJI.
01:42 6 And so you'll see throughout my presentation, I'm going
01:42 7 to show you both and how they both impacted my opinion.

01:42 8 Q. And have you been present for this trial to
01:42 9 hear previous testimony?

01:42 10 A. I have. So I've been here in Waco since this
01:42 11 past weekend. I've been in the courtroom for a very
01:42 12 significant portion of the case and working back at the
01:42 13 hotel and then reading -- I think we heard about trial
01:42 14 transcripts. I understand that the kind court
01:42 15 reporters here will type up what is said at trial, and
01:42 16 I've asked for those in the evening when I haven't seen
01:42 17 things. Most of it's been deposition testimony that
01:42 18 was played, and I had the opportunity to review that.

01:42 19 Q. And what has that testimony indicated to you
01:42 20 about the value of Textron's patents in this case?

01:42 21 A. Several things. I start from an understanding
01:42 22 that this technology is -- it's incremental and, if
01:42 23 anything, would only provide minor -- very small
01:42 24 improvements over what came before.

01:43 25 Now, I learned that from my discussions with

01:43 1 Dr. Nourbakhsh as well as the presentation that he gave
01:43 2 both yesterday and today. But what I wanted to do is
01:43 3 understand from an economic standpoint, whether there
01:43 4 were things that I reviewed that were consistent with
01:43 5 what he arrived at. And a few of those things that I
01:43 6 identified were, I understand that Textron does not use
01:43 7 the two patents at issue.

01:43 8 And in the economic world, we call those idle
01:43 9 patents. They're just sitting. So they're not being
01:43 10 used by -- for any real purpose. It's a bit like if
01:43 11 you were, again, looking around your house and you have
01:43 12 a lot of things in your house and say, well, I don't
01:43 13 necessarily use those things. And if I don't use them,
01:43 14 how really valuable are -- they are to me.

01:43 15 So the fact that they don't use them was
01:43 16 relevant, and then I understand that at least for the
01:43 17 '909 patent, they offered to sell it to DJI. And
01:43 18 that's another piece of evidence that would suggest
01:43 19 that when you're looking to sell something that perhaps
01:44 20 you don't use, you're looking to sell it such that you
01:44 21 can get a return on it, but it really isn't all that
01:44 22 important to you.

01:44 23 And then lastly, and I'll talk about this
01:44 24 later in my presentation, an economic theory to value
01:44 25 intellectual property, certainly patents, is whether

01:44 1 there are available alternatives to those patents. And
01:44 2 to the extent that there are available alternatives,
01:44 3 the cost of that alternative, it's a bit like if you
01:44 4 said I could drive today and I could pay \$5 to park or
01:44 5 I could take the bus and pay \$4.75.

01:44 6 And those are alternatives. And maybe they
01:44 7 have a very, very small distinct cost from an economic
01:44 8 standpoint. So doing one or the other really doesn't
01:44 9 impact you all that much. If there's an alternative to
01:44 10 a patent, an alternative design, and you can use that
01:44 11 at relatively low cost, companies will move to those
01:44 12 things, certainly if they're facing an extraordinarily
01:45 13 overstated royalty ask in a patent case.

01:45 14 Q. And so before we dive into your specific
01:45 15 opinions, I'd just like to walk through a couple basic
01:45 16 principles. And so let's start first with what is a
01:45 17 royalty?

01:45 18 A. So royalty, it's an interesting concept. And
01:45 19 I'm going to use an analogy. And I'm -- I guess I'm a
01:45 20 little bit embarrassed to do that, but I want to make
01:45 21 sure that if I provide an analogy, it will make sense.

01:45 22 It's always reminded me of renting something
01:45 23 like an apartment. It's really about usage.

01:45 24 It's one of those situations where if you were
01:45 25 going to rent an apartment for a period of time, you

01:45 1 might go to a landlord and you might say, I'd like to
01:45 2 rent the apartment for a couple months, and the
01:45 3 landlord would give you the keys and you would give the
01:45 4 landlord the rent money, and then you could stay in the
01:45 5 apartment. So it's a payment for usage.

01:45 6 With a patent, you'll see on this diagram I
01:45 7 have, instead of renting an apartment, you're really
01:45 8 renting or licensing the patents. You're saying, I'd
01:46 9 like to use those patents.

01:46 10 And so just like you're using that apartment,
01:46 11 you enter into a license agreement as opposed to a
01:46 12 rental agreement, where the patent owner and the
01:46 13 licensee agree on an amount, they sign a license
01:46 14 agreement like a lease agreement for an apartment, and
01:46 15 then they exchange a royalty just like you would a
01:46 16 rental.

01:46 17 So it's really like you're renting those
01:46 18 patents for a period of time.

01:46 19 Q. And what form can a royalty come in?

01:46 20 A. There's really two forms. One is called an
01:46 21 upfront lump-sum payment. It's where you pay one
01:46 22 single amount all up front for the usage of that
01:46 23 technology.

01:46 24 And the other is called a running royalty,
01:46 25 where you pay periodically for your continued use of

01:46 1 the technology. Both are -- both are appropriate and
01:46 2 informative in certain circumstances.

01:46 3 Q. And what form do you consider informative or
01:46 4 appropriate in this circumstance?

01:46 5 A. In this case, I think --

01:46 6 MR. PANKRATZ: Objection, Your Honor.
01:46 7 This is outside the scope of his report and what he's
01:47 8 permitted to testify to.

01:47 9 THE COURT: Overruled.

01:47 10 MR. PANKRATZ: All right.

01:47 11 A. So it's my opinion that in this case in
01:47 12 particular, an upfront lump sum would be an appropriate
01:47 13 measure of damages, and there's a number of reasons for
01:47 14 that.

01:47 15 THE COURT: Hold on one second.

01:47 16 I must have misheard the -- I thought the
01:47 17 question was just an explanation of lump sum.

01:47 18 Do you have somewhere in his report where
01:47 19 he points out --

20 MS. KESTLE: Yes, Your Honor.

01:47 21 THE COURT: -- that he's selected a lump
01:47 22 sum and then why?

01:47 23 MR. PANKRATZ: May we approach,
01:47 24 Your Honor?

01:47 25 THE COURT: Sure.

01:47 1 (Bench conference.)

01:47 2 MR. PANKRATZ: Your Honor, we filed a
01:47 3 Daubert that was granted on his lump-sum analysis. He
01:47 4 had an opinion that the lump sum was appropriate, and
01:47 5 it was excluded. All the bases for that analysis were
01:47 6 excluded.

01:47 7 I suppose he can say that he thinks a
01:48 8 lump sum is appropriate, but he cannot say what he
01:48 9 thinks the number is.

01:48 10 THE COURT: Was his lump sum excluded?

01:48 11 MS. KESTLE: No. It was just the
01:48 12 reliance on settlement agreements. His lump-sum
01:48 13 discussion applied to both his response to
01:48 14 Mr. Andrien's opinion and his discussion of settlement
01:48 15 agreements.

01:48 16 THE COURT: Well, his opinion was either
01:48 17 excluded or it wasn't.

01:48 18 Do you have the order where it was
01:48 19 excluded?

01:48 20 MR. PANKRATZ: I can get you that.

01:48 21 MS. KESTLE: And --

01:48 22 THE COURT: I mean, it's kind of black
01:48 23 and white.

01:48 24 MR. PANKRATZ: He may not rely -- his
01:48 25 entire lump-sum analysis was based on two agreements.

01:48 1 He is not permitted to rely on those two agreements.

01:48 2 MS. KESTLE: In addition to discussing
01:48 3 some of those agreements, which was a separate issue,
01:48 4 he also critiqued Mr. Andrien's discussion and reliance
01:48 5 on a running royalty and said that it would be --

01:48 6 THE COURT: Well, he can do that --

01:48 7 MS. KESTLE: -- appropriate to be a lump
01:48 8 sum, and that's exactly what he's doing now.

01:48 9 THE COURT: -- but he doesn't get to talk
01:48 10 about the lump sum if it was excluded. And I don't
01:48 11 know if it was or not.

01:48 12 MS. KESTLE: It wasn't excluded.

01:48 13 (Bench conference ends.)

01:48 14 THE COURT: Ladies and gentlemen, we're
01:48 15 going to take a short recess. If you would remember my
01:49 16 instructions.

01:49 17 THE BAILIFF: All rise.

01:49 18 (Jury exited the courtroom.)

01:49 19 THE COURT: You may be seated.

01:49 20 You can step down.

01:49 21 Okay. The objection, as I understand it,
01:49 22 has to do with the fact that plaintiff's counsel
01:49 23 informs me that a Daubert was granted with respect to
01:49 24 this witness being able to proffer an opinion with
01:49 25 regard to a lump sum.

01:49 1 And as I understood it, but I may not
01:49 2 understand it fully, it was because he based it on two
01:49 3 license agreements or he based it on something and it
01:49 4 was excluded.

01:49 5 So let me hear first from plaintiff as to
01:49 6 your position on what the ruling was on the Daubert
01:50 7 motion.

01:50 8 MR. PANKRATZ: And, Your Honor, may I
01:50 9 approach and hand you the order?

01:50 10 THE COURT: Sure. Please.

01:50 11 Okay. Thank you.

01:50 12 MR. PANKRATZ: Your Honor,
01:50 13 Mr. Schoettelkotte's lump-sum analysis was premised on
01:50 14 his starting point of two agreements. We filed a
01:50 15 Daubert, Docket No. 141, which was granted excluding
01:50 16 his reliance on those two agreements.

17 I've handed you the order and the
18 transcript.

01:50 19 Without those two agreements, he does not
01:50 20 have any lump-sum number to provide.

01:50 21 THE COURT: Let me hear a response to
01:50 22 that.

01:50 23 MS. KESTLE: Your Honor, in at least
01:50 24 Paragraphs 62 through 66 of his report, he opines on
01:50 25 Mr. Andrien's failure to properly consider evidence of

01:51 1 a lump-sum royalty structure. That's the only opinion
01:51 2 he is trying to provide today. He is not getting into
01:51 3 these settlement agreements --

01:51 4 THE COURT: Slow down.

01:51 5 I heard you ask him about whether or not
01:51 6 he had offered a lump-sum opinion, did I not?

01:51 7 I mean, that was why I stopped it.
01:51 8 Wasn't he about to say that he thought a lump sum would
01:51 9 be appropriate here?

01:51 10 MS. KESTLE: Yes. He was about to say
01:51 11 that, and that is entirely consistent with parts of his
01:51 12 opinion that were not excluded.

01:51 13 THE COURT: And he is going to say -- but
01:51 14 the plaintiff is worried he was going to offer a
01:51 15 lump-sum opinion which has been stricken.

01:51 16 And what you're telling me is that he is
01:51 17 going to say he thinks a lump sum would have been
01:51 18 appropriate in this case and not the running royalty
01:51 19 that plaintiff's expert did, and then he's going to
01:51 20 explain why -- consistent with what he had in his
01:51 21 report, why he's going to criticize the plaintiff's
01:51 22 report for not being a lump sum.

01:51 23 And that's as far as you're going to go?

01:51 24 MS. KESTLE: Yes, Your Honor. That's
01:51 25 correct. He will provide --

01:51 1 THE COURT: I got it.

01:51 2 Do you have an objection to that?

01:52 3 MR. PANKRATZ: No, Your Honor. Thank
01:52 4 you.

01:52 5 THE COURT: Okay. Very good.

01:52 6 William, will you bring the jury back in,
01:52 7 please?

01:53 8 (Jury entered the courtroom.)

01:53 9 THE COURT: Thank you. You may be
01:53 10 seated.

01:53 11 Counsel, you may continue.

01:53 12 BY MS. KESTLE:

01:53 13 Q. As I asked you before the break, what form do
01:53 14 you consider to be -- what form of a royalty do you
01:53 15 consider to be appropriate in this case?

01:53 16 A. An upfront lump-sum royalty.

01:53 17 Q. And how do you go about calculating royalty in
01:53 18 a patent case?

01:53 19 A. There's a -- there's a construct called the
01:53 20 hypothetical negotiation, and the first thing we do is
01:53 21 we want to understand what is the timing of that
01:53 22 hypothetical negotiation? When does it happen? When
01:54 23 did the two parties meet?

01:54 24 The second thing that we do is we look at what
01:54 25 is -- or who are, rather, the parties. In this case it

01:54 1 would be Textron and DJI.

01:54 2 And then, lastly, we determine what is the
01:54 3 amount that the parties would agree upon.

01:54 4 Q. And you mentioned a hypothetical negotiation.

01:54 5 When would that hypothetical negotiation occur
01:54 6 in this case?

01:54 7 A. There's actually two of them. It's April of
01:54 8 2015 for the '909 patent, and October of 2015 for the
01:54 9 '752 patent.

01:54 10 Q. And how do you go about determining the
01:54 11 royalty that the parties would have agreed to at that
01:54 12 hypothetical negotiation?

01:54 13 A. So as a patent valuator, for purposes of
01:54 14 determining a royalty in a patent case, we look at a
01:54 15 case that happened in the state of New York in 1970.
01:54 16 And it's somewhat of a precedent on something that
01:55 17 damages experts and valuers should look at. It's
01:55 18 called the Georgia-Pacific case.

01:55 19 And the Georgia-Pacific case identified 15
01:55 20 factors. And of those 15 factors, some of them relate
01:55 21 to licensing, some of them relate to financial factors
01:55 22 and some of them relate to the actual technology
01:55 23 itself.

01:55 24 And you look at all of those factors, as well
01:55 25 as other considerations, and in a hypothetical

01:55 1 negotiation you evaluate those factors to determine
01:55 2 what a reasonable royalty would be.

01:55 3 Q. And did you consider all 15 of these factors
01:55 4 as part of your analysis for this case?

01:55 5 A. I did, but we only really need to talk about
01:55 6 the ones that were most relevant.

01:55 7 And in this case, it's my opinion that
01:55 8 Factors 5, 9, 10 and 13, as well as Factor 15, which is
01:55 9 the hypothetical, would be most relevant.

01:55 10 Q. Okay. And looking at your last bullet point
01:55 11 here, Textron and DJI are not competitors.

01:56 12 Why is that your opinion?

01:56 13 A. It is because -- and you want me to move to
01:56 14 the last bullet point?

01:56 15 Q. Yes. Yes. Thank you.

01:56 16 A. Thank you.

01:56 17 So the reason that would be is because DJI
01:56 18 sells drones -- we've heard a lot about that -- and
01:56 19 Textron does not.

01:56 20 And what that tells us is, is that they're not
01:56 21 competing head to head. We've heard evidence in the
01:56 22 case that there's no evidence of competition in the
01:56 23 marketplace where there was a lost sale.

01:56 24 When we look at the economics of competition,
01:56 25 we often try to see is there a situation where the

01:56 1 parties are going head to head to try to sell an asset
01:56 2 to a particular customer, and we have not seen that
01:56 3 here. So that's certainly something that we've looked
01:56 4 at.

01:56 5 And in addition, and very importantly, DJI's
01:56 6 customers are oftentimes very different than customers
01:56 7 of Textron. DJI customers are those focused on using
01:57 8 drones for consumer purposes; whereas, Textron's
01:57 9 customers are much more commercial- or
01:57 10 government-oriented.

01:57 11 I wanted to look into this a little bit more,
01:57 12 and so I did two things. And I also heard some
01:57 13 testimony. There's a gentleman named Mr. Pascal. He
01:57 14 testified, I think, yesterday via deposition. He's a
01:57 15 Textron witness. And he, himself, identified at least
01:57 16 twice during the deposition that I heard that he did
01:57 17 not see a situation where Textron and DJI were
01:57 18 competing.

01:57 19 And then as a valuation person, I have various
01:57 20 resources that I go to to check to see if there's
01:57 21 competition. One is the SEC filings that are available
01:57 22 to me. The SEC is where Textron files its
01:57 23 publicly-available financial statements for people who
01:57 24 own their stock to read and see.

01:57 25 And I looked at that SEC filing 10-K, if you

01:57 1 will, and I did not see any reference to drones as
01:57 2 competition, and certainly not any reference to DJI.

01:57 3 I also looked at Capital IQ, which is an
01:58 4 organization that's owned by Standard & Poor's that
01:58 5 identifies competitors in each market. And they did
01:58 6 not identify either drones or any drone manufacturer to
01:58 7 be a competitor of Textron.

01:58 8 Q. And I think you mentioned the -- Textron's
01:58 9 offer to sell the '909 patent a little bit earlier.

01:58 10 Do you remember that?

01:58 11 A. Yes.

01:58 12 Q. Okay. And have you, yourself, reviewed that
01:58 13 offer to sell, which I believe is Exhibit PX-67 which
01:58 14 has already been introduced into evidence?

01:58 15 A. Yes. I have.

01:58 16 Q. Okay. And how does Textron's offer to sell
01:58 17 the '909 patent inform your understanding of the
01:58 18 competitive relationship or lack thereof between
01:58 19 Textron and DJI?

01:58 20 A. I mentioned as an accountant and evaluator,
01:58 21 we're oftentimes looking at many, many documents from
01:58 22 both sides. So I've seen competition, competitive
01:58 23 documents in all types of situations with all types of
01:58 24 products. And as I read this, there were a few things
01:58 25 that stuck out to me as to why this suggests that there

01:58 1 is not competition between these two parties.

01:59 2 The first is a -- if you were just to look up
01:59 3 at the top here it says "opportunity for DJI." And in
01:59 4 the documents that I'm normally seeing where there's
01:59 5 head-to-head competition or competition in the
01:59 6 marketplace, you're not looking for opportunities to
01:59 7 give to a competitor. You're looking to compete with
01:59 8 them.

01:59 9 Here what you read is, in the top paragraph --
01:59 10 and maybe if we could highlight it. It says: We
01:59 11 identified a patent family that may be of interest to
01:59 12 DJI. The family includes the below United States --
01:59 13 you're going to start at the "we" and "identified" --
01:59 14 we identified a patent family that may be of interest.
01:59 15 The family includes the below United States patents as
01:59 16 well as counterparts in China, Canada, Germany, France
01:59 17 and Great Britain.

01:59 18 And then you'll see the '909 patent listed.
01:59 19 And what that's saying is that this opportunity that
01:59 20 they want to give DJI is not only a U.S. patent, but
01:59 21 they want to give them rights to this patent -- and I
02:00 22 said "give." I take that back. I'm sorry. Sell them
02:00 23 rights, not only in the U.S. but also in China, Canada,
02:00 24 Germany, France and Great Britain, as well as Italy.
02:00 25 So almost a worldwide rights to this patent.

02:00 1 If you have important technology, you don't
02:00 2 share that with your competitors. You hold that close
02:00 3 to the vest.

02:00 4 Lastly, at the bottom, it says, Bell has
02:00 5 decided to sell. This wasn't a situation, at least as
02:00 6 I read it, where they're looking for anything else but
02:00 7 to get into a transaction with another company. This
02:00 8 patent family is reaching out to a number of companies
02:00 9 in the UAV market if your company is interested in
02:00 10 purchasing these patents.

02:00 11 So again, I'm involved in transactions where
02:00 12 there's commercial sales of intellectual property as
02:00 13 well as licensing. This is very standard, fair type
02:00 14 stuff you would see between companies. Certainly there
02:00 15 doesn't appear to me, as an economic person, to
02:01 16 identify any competitive threat in this document.

02:01 17 Q. And earlier I believe you also mentioned you
02:01 18 do not agree with Mr. Andrien's opinions in this case.

02:01 19 Can you just explain for us at a high level
02:01 20 why you disagree with Mr. Andrien and his opinions?

02:01 21 A. Sure. And I'm going to see if I can clear
02:01 22 that, if I can.

02:01 23 There we go.

02:01 24 So I pulled together this slide, and there's a
02:01 25 lot on it so I'm going to go through it rather quickly,

02:01 1 and then I'll get into the details. It's my opinion
02:01 2 that Mr. Andrien failed to properly account for the
02:01 3 full value of the camera and gimbal.

02:01 4 You may recall he said that was a subtraction
02:01 5 that he made in order to reduce the price associated
02:01 6 with a drone. It's also my opinion that he failed to
02:01 7 deduct DJI's costs to manufacture and sell drones.
02:01 8 That he failed to apply Textron's own profit split
02:01 9 approach. That he failed to consider DJI's innovations
02:02 10 to drones, and lastly that he failed to consider the
02:02 11 cost of alternative designs.

02:02 12 Q. And I'd like to walk through each of these one
02:02 13 by one with you, if everyone will indulge.

02:02 14 Let's start with the first one. Would you
02:02 15 please explain what you mean by fail to properly
02:02 16 account for the full value of the camera/gimbal?

02:02 17 A. As part of my work on this case, I understand
02:02 18 that Mr. Andrien deducted what he called the
02:02 19 replacement costs of a camera and a gimbal, which is,
02:02 20 to my understanding, what attaches the camera to the
02:02 21 drone.

02:02 22 But as you saw these drones, they're very much
02:02 23 integrated devices. And so the camera and the gimbal,
02:02 24 they don't work separate and apart from the drone. In
02:02 25 fact, inside the drone, I understand that there are

02:02 1 image processors and also what I would term as a motor
02:02 2 that actually helps move the camera. It moves the
02:03 3 camera for things such as taking, say, a panoramic
02:03 4 picture. And so those types of features inside of the
02:03 5 drone are things that Mr. Andrien didn't take out when
02:03 6 he made his deduction. And all of those are integrated
02:03 7 into the drone and work hand in hand, if you will, with
02:03 8 the camera and its functionality.

02:03 9 MS. KESTLE: And before we turn to the
02:03 10 second point here, Your Honor, I believe at this point
02:03 11 we'll have to seal the courtroom. We're about to get
02:03 12 into some confidential materials.

02:03 13 THE COURT: If you're not under the
02:03 14 protective order, would you please excuse yourself?

02:03 15 (Sealed proceedings.)

02:03 16 A. May I just add one thing that I had forgotten
02:03 17 to mention?

02:03 18 BY MS. KESTLE:

02:03 19 Q. Yes. Absolutely.

02:03 20 A. I'm sorry. As part of the camera, because
02:03 21 those other elements that were integral in the actual
02:03 22 drone that work with the camera were not deducted, it's
02:03 23 my opinion that his deduction for the camera was not
02:03 24 enough. Thank you.

02:04 25 Q. Okay. So then let's turn to your second

02:04 1 bullet point here. And would you please explain what
02:04 2 you mean by Mr. Andrien failed to deduct DJI's costs to
02:04 3 manufacture and sell drones?

02:04 4 A. So we get into a very interesting part of
02:04 5 measuring the value of patents, and this is about
02:04 6 something called apportionment. What we're really
02:04 7 required to do in a patent case is be very careful to
02:04 8 apportion down to just the footprint of the patented
02:04 9 technology in the marketplace, which means we have to
02:04 10 be very careful that we're not valuing other features
02:04 11 and attributes of the drone unnecessarily and putting
02:04 12 that in the royalty or the damages.

02:04 13 We have to get just to that patented feature,
02:04 14 and this is one of the first areas where I notice that
02:04 15 I don't believe Mr. Andrien did that correctly.

02:04 16 Q. Okay. And what cost did Mr. Andrien deduct?

02:04 17 A. If we would go to the next slide. Thank you.

02:04 18 We heard from Mr. Andrien that DJI had
02:05 19 [REDACTED] in revenue. And he deducted, I believe he
02:05 20 testified, roughly \$90,000. On this particular
02:05 21 document, it says 134, but I believe his testimony was
02:05 22 that he deducted \$90,000.

02:05 23 And so that caught my attention as, one, an
02:05 24 accountant who looks at revenue and costs, but it
02:05 25 struck me if you're only deducting \$90,000 in costs

02:05 1 from [REDACTED] in revenue, how -- how could it be
02:05 2 that they could bring a drone to market for that little
02:05 3 money? How is it possible that DJI could bring a drone
02:05 4 to market for only \$90,000 but sell [REDACTED] in
02:06 5 drones?

02:06 6 There's an enormous disconnect there, and so I
02:06 7 did some investigation.

02:06 8 Q. Okay. And can you walk us through a little
02:06 9 bit about why that disconnect may be a problem or an
02:06 10 issue here?

02:06 11 A. Sure.

02:06 12 Could we go to the next slide? Thank you.

02:06 13 And if you would advance one more, please.

02:06 14 So when you study DJI, they do not sell
02:06 15 standalone software. They don't sell ActiveTrack,
02:06 16 Follow Me and Hover as standalone software. You
02:06 17 couldn't go to -- back in the day when you could go to
02:06 18 a store and buy, you know, a tax software off the shelf
02:06 19 or some other software off the shelf. They're not
02:06 20 selling it like that.

02:06 21 DJI sells drones, and those drones have this
02:06 22 software on it. But in order for this software to ever
02:06 23 go to the market, they have to create a drone and sell
02:06 24 that drone.

02:06 25 In accounting we call this the matching

02:06 1 principle. Whenever you have a revenue, you have to
02:07 2 match the cost that's associated with that revenue. So
02:07 3 if you have \$100 in revenue and you have \$80 in costs,
02:07 4 you have to match those so that the result is a \$20
02:07 5 profit. 100 minus 80, a \$20 profit.

02:07 6 So you have to have your revenue and match all
02:07 7 the costs. That's not what Mr. Andrien did here.

02:07 8 Q. So in your opinion, what costs should have
02:07 9 been deducted?

02:07 10 A. Mr. Andrien should have deducted all the costs
02:07 11 associated with manufacturing the drone because that's
02:07 12 what DJI does.

02:07 13 Q. And how did you determine what those costs
02:07 14 were in this case?

02:07 15 A. Sure. So as part of my work in this case, I
02:07 16 looked at various financial documents that were
02:07 17 provided by DJI in this case. And after having
02:07 18 reviewed those, I spoke with Ms. Huang who is one of
02:07 19 their accounting professionals with DJI, and I also
02:08 20 reviewed her deposition.

02:08 21 And what she identified for me is that to
02:08 22 manufacture a drone, they perform research and
02:08 23 development, that's on the far left, which means
02:08 24 they're studying various ways to put technologies
02:08 25 together to assemble things properly, to make sure that

02:08 1 they meet all the standards that they need to, to test
02:08 2 them, all types of research that they do. And there's
02:08 3 a cost to that. So that could be a cost that would
02:08 4 need to be deducted.

02:08 5 After R&D happens, so they know how to build
02:08 6 it, then they have to manufacture it, which means you
02:08 7 have the componentry but also the labor and also the
02:08 8 direct overhead. Because you have to have a building,
02:08 9 a place to build it. We call that cost of goods sold.
02:08 10 And in cost of goods sold you have the materials, the
02:08 11 labor and the manufacturing overhead.

02:08 12 Once they build it, they have to ship it to
02:08 13 their customers, which means they have to package it.
02:08 14 I saw Dr. Nourbakhsh up here earlier, and he was
02:09 15 holding a drone. They can't ship a drone without a
02:09 16 box, without putting it on a truck, without putting it
02:09 17 on a plane, and there's a cost to that. And he didn't
02:09 18 subtract that cost either.

02:09 19 There's also operating costs, and those are
02:09 20 costs of the leadership. It's the cost of assisting
02:09 21 and managing all of these processes that we're seeing,
02:09 22 including R&D, cost to manufacture, shipping costs.

02:09 23 And then finally we heard from Mr. Oshauna a
02:09 24 day or so ago, and he talked about his efforts to sell
02:09 25 these products to Apple. Well, he would be part of the

02:09 1 marketing and selling expenses. So they have to go to
02:09 2 market. You might find this product in a Best Buy. So
02:09 3 somebody has to market it to Best Buy, market it to
02:09 4 Apple, put it on the website.

02:09 5 All of those costs are the costs that have to
02:09 6 follow the revenue. So if you're going to identify
02:09 7 [REDACTED] in sales, you can't just subtract the
02:09 8 costs of three softwares that they don't sell alone.
02:10 9 They sell them on a drone. So you have to get all
02:10 10 these costs.

02:10 11 And when I evaluated the costs, I identified
02:10 12 [REDACTED] as the cost to manufacture and sell UAVs
02:10 13 or drones.

02:10 14 Q. And I think you mentioned a couple of DJI
02:10 15 financial documents. If you can quickly turn in your
02:10 16 binder, I'd just like you to confirm a couple of things
02:10 17 quickly.

02:10 18 The first is, if you could please turn to
02:10 19 Tab PTX-74, which has already been admitted into
02:10 20 evidence.

02:10 21 A. Yes.

02:10 22 Q. Is this one of the DJI financial documents
02:10 23 that you reviewed?

02:10 24 A. Yes. This is some of the documents I spoke
02:10 25 with Ms. Huang about.

02:10 1 Q. Okay. Great. And then -- thank you.

02:10 2 If you would please also turn to Tab PTX-77,
02:10 3 which has also been admitted into evidence already.

02:10 4 A. Yes.

02:10 5 Q. Okay. And is this also one of the DJI
02:10 6 financial documents that you reviewed in forming your
02:10 7 opinions?

02:11 8 A. Yes, ma'am. It is.

02:11 9 Q. Okay. In your opinion, if Mr. Andrien had
02:11 10 accounted for these manufacturing and sales costs that
02:11 11 you just identified, what impact would this have had on
02:11 12 his overall damages analysis or number?

02:11 13 A. So if we can pull up my next slide, what I did
02:11 14 is I took Mr. Andrien's calculations of 367.6 million
02:11 15 and I adjusted for the costs that he did not remove
02:11 16 related to the manufacturing of the drone.

02:11 17 And when I did that, it corrected
02:11 18 Mr. Andrien's damages number to be [REDACTED]

02:11 19 Q. So then let's turn to your next disagreement
02:11 20 and just keep walking through them.

02:11 21 Could you please explain for the jury what you
02:11 22 mean by failed to apply Textron's own profit split
02:11 23 approach?

02:11 24 A. Sure.

02:11 25 So I mentioned earlier that I'm really looking

02:12 1 for the proper way to apportion. One way to apportion
02:12 2 is to subtract out the proper costs, which we just
02:12 3 talked about. And now I'm looking at something called
02:12 4 what's the appropriate profit split.

02:12 5 And what we're really saying there is, once
02:12 6 you get to a profit number, how much should go to the
02:12 7 patent owner and how much should go to the licensee in
02:12 8 this case.

02:12 9 Q. Okay. And what did you review to understand
02:12 10 what Textron's own profit split approach would be?

02:12 11 A. Earlier in my testimony I mentioned that I
02:12 12 reviewed both Textron and DJI documents. These are
02:12 13 some of the Textron documents that I looked at and
02:12 14 wanted to make sure that I took into account Textron's
02:12 15 position in this case.

02:12 16 If we would go to the next slide, please.

02:12 17 So as part of Textron's normal course of
02:12 18 business, they perform analyses whenever they are
02:12 19 entering into a licensing negotiation with a third
02:13 20 party, and they produced that information so that I
02:13 21 could evaluate each and every one of those documents.

02:13 22 And it would take a very long time to show you
02:13 23 all of them. So what I've tried to do is show you some
02:13 24 from before the hypothetical negotiation -- remember,
02:13 25 that was in 2015 -- before the hypothetical

02:13 1 negotiation, at or around the time of the hypothetical
02:13 2 negotiation and then after the hypothetical negotiation
02:13 3 so you could make your own determination.

02:13 4 So this is one of those files. And if you've
02:13 5 ever used Excel, it's an Excel workbook with various
02:13 6 worksheets in it. And across the bottom, you'll see
02:13 7 this particular spreadsheet.

02:13 8 And the thing I would point you to first is,
02:13 9 up at the top, you'll see it's 2010. So this is before
02:13 10 the hypothetical negotiation. And you'll see here they
02:13 11 identify what they believe is a fair share. They say:
02:14 12 IP value estimated as a "fair share" of potential
02:14 13 buyer/licensee's profit.

02:14 14 Now, remember, the buyer/licensee is the one
02:14 15 who's licensing the technology from Textron. So it's
02:14 16 very similar to what we have in this case. It would be
02:14 17 DJI licensing from Textron.

02:14 18 And under analysis methodology, they say --
02:14 19 under the profit split approach, they want to identify
02:14 20 what the fair share is.

02:14 21 Over here on the right, this is where they
02:14 22 start. They begin with a baseline profit split of
02:14 23 25 percent. Again, this is their normal course of
02:14 24 business.

02:14 25 And then they make some adjustments to this.

02:14 1 And those adjustments are related to technology risks,
02:14 2 development cost risks, manufacturing cost risks,
02:14 3 market/sales risk and political risks. And then at the
02:14 4 end, they identify what the royalty rate would be.

02:14 5 In this particular situation, they started
02:14 6 with 25 percent and they adjusted downward. And you'll
02:15 7 see that happens down here. They identify what the
02:15 8 adjustments are going to be.

02:15 9 They start here at medium, and then they
02:15 10 adjust either down to low or very low or up to high or
02:15 11 very high. And based upon those adjustments here, they
02:15 12 made an adjustment down for development cost risks and
02:15 13 an adjustment down for market and sales risk.

02:15 14 Ultimately, 25 minus the 10 is 15, and that's
02:15 15 what they determined would be a risk-adjusted profit
02:15 16 split rate.

02:15 17 So according to Textron, they would use that
02:15 18 15 percent and multiply that times the profit to give a
02:15 19 profit split. It would be 15 percent to Textron and
02:15 20 85 percent to the licensee.

02:15 21 Q. And this is from Defendants' Exhibit 253; is
02:15 22 that correct?

02:15 23 A. That is correct.

02:15 24 Q. Okay.

02:15 25 A. And if we go to the next slide. I told you

02:16 1 that I was going to show you one at the time of the
02:16 2 hypothetical negotiation. This is 2015.

02:16 3 You'll recall -- this is a different workbook
02:16 4 with a different set of worksheets. They're doing the
02:16 5 fair-share discussion here. Under the methodology,
02:16 6 they want to do a fair share.

02:16 7 Over here, their normal course of business,
02:16 8 start with 25 percent, and then they're going to adjust
02:16 9 it for the same five factors. Here they adjusted down
02:16 10 3, 3, 3 and 3 respectively. And you'll see that down
02:16 11 here.

02:16 12 And then, ultimately, they came up with this
02:16 13 13 percent. And similarly to the 2010 example, that
02:16 14 would be 13 percent to Textron and the balance to the
02:16 15 licensee.

02:16 16 Q. And this is from Defendants' Exhibit 816,
02:16 17 which has also been admitted into evidence, correct?

02:16 18 A. That's correct.

02:16 19 Q. Okay. And for good measure, let's do one
02:17 20 more. I think you mentioned one from recent times as
02:17 21 well.

02:17 22 A. Sure.

02:17 23 So I know that I'm showing you three of these,
02:17 24 but I thought it would make sense to give you a
02:17 25 perspective of the normal-course-of-business nature of

02:17 1 these documents, the fact that they were done in 2010,
02:17 2 in 2015 and 2022.

02:17 3 You'll see it's the same consideration. We
02:17 4 have a fair share. Textron starts with 25 percent in
02:17 5 the ordinary course of business. Here they make
02:17 6 adjustments: -5, -5, -5 and -5. So four out of the
02:17 7 five things that they have evaluated, and you'll note
02:17 8 that those are over here.

02:17 9 And here, they're at 45 percent. So they
02:17 10 adjust down and they adjust up, but they're always
02:17 11 starting at this 25 percent baseline, and then they're
02:17 12 adjusting for various factors after that.

02:18 13 And as I mentioned earlier, these documents,
02:18 14 which are Textron's own documents in the normal course
02:18 15 of business, Mr. Andrien didn't evaluate these. He
02:18 16 didn't incorporate these into his report.

02:18 17 And from the perspective of a hypothetical
02:18 18 negotiation between a willing buyer and a willing
02:18 19 seller, what we're called to do as independent experts
02:18 20 is look at what each party would evaluate happening at
02:18 21 that hypothetical.

02:18 22 And it's my position that the baseline profit
02:18 23 split of 25 percent would be what Textron would
02:18 24 consider because that's the policy, that's the
02:18 25 procedure they followed throughout time.

02:18 1 Q. And this slide is from Defendants'
02:18 2 Exhibit 199; is that correct?

02:18 3 A. Yes.

02:18 4 Q. Okay. And you said you reviewed a number of
02:18 5 Textron documents.

02:18 6 So approximately how many Textron documents
02:18 7 did you see this 25 percent baseline profit split rate?

02:18 8 A. So I saw -- there were 61 total documents, and
02:19 9 by "documents," I mean 61 different workbooks with
02:19 10 these types of worksheets in them. They had 25 percent
02:19 11 as the baseline profit split in those 61 documents.

02:19 12 What this tells me is it's a normal course of
02:19 13 business. It's something that they evaluate internally
02:19 14 as they're determining what an appropriate profit split
02:19 15 would be for a negotiation with a licensee.

02:19 16 Q. And in any of those 61 documents, those
02:19 17 exemplary documents that you reviewed, did you ever see
02:19 18 a profit split up to [REDACTED] as Mr. Andrien has
02:19 19 proposed in this case?

02:19 20 A. I didn't. And interestingly enough, if you
02:19 21 look at the way the model was built, it wouldn't even
02:19 22 allow you to go as high as [REDACTED].

02:19 23 The highest it would ever go is 55 percent.
02:19 24 And again, I think had Mr. Andrien looked at this, he
02:19 25 might have been guided at least by the principles that

02:19 1 they follow internally in the ordinary course of
02:19 2 business.

02:20 3 What I'm showing here is 13 percent was the
02:20 4 lowest one I showed you, 45 percent is the highest one
02:20 5 I showed you, but to be fair, in full disclosure, I saw
02:20 6 some as low as 11 percent at the end of the day and as
02:20 7 high as 55 percent at the end of the day.

02:20 8 Q. And how long has Textron, based on the
02:20 9 documents that you've reviewed, been using this 25
02:20 10 baseline profit split approach?

02:20 11 A. If you'd advance the slide.

02:20 12 The first document that I saw using this
02:20 13 approach was 2009, and it has continued every year
02:20 14 through 2022. So as early as -- or late as last year,
02:20 15 in 2022, they were following this normal course of
02:20 16 business practice, and so I thought it was at least
02:20 17 relevant to incorporate into my analysis.

02:20 18 Q. And I believe you mentioned this earlier, but
02:20 19 did Mr. Andrien consider any of these documents or this
02:20 20 25 percent baseline profit split in his approach?

02:21 21 A. He didn't. And again, it's -- there's always
02:21 22 valuator judgment involved in what we do, but I have to
02:21 23 ask myself if I'm really putting together what parties
02:21 24 are thinking at the time of a hypothetical negotiation.
02:21 25 I can't ignore their standard normal course of business

02:21 1 documents.

02:21 2 Q. And if Mr. Andrien had considered the --
02:21 3 Textron's basic baseline profit split practice, what
02:21 4 impact would this have had on his damages number?

02:21 5 A. You'd have to advance the slide, please.

02:21 6 So what I ended up doing here is I took
02:21 7 Mr. Andrien's 367 million and I adjusted it for
02:21 8 costs -- we talked about that just a few minutes ago --
02:21 9 to [REDACTED]. And then I adjusted that based upon
02:21 10 the profit split of 25 percent, and I got [REDACTED].

02:21 11 And so that would be -- I beg your pardon.
02:22 12 That would be correcting both for the costs that
02:22 13 weren't deducted as well as the ordinary course of
02:22 14 business 25 percent profit split that Textron uses
02:22 15 internally.

02:22 16 Q. And is that the end of your disagreements with
02:22 17 Mr. Andrien's opinion?

02:22 18 A. No. It's not.

02:22 19 Q. Would you please explain to the jury what you
02:22 20 mean by Mr. Andrien failed to consider DJI's
02:22 21 innovations to drones?

02:22 22 A. So at the risk of being a clanging cymbal,
02:22 23 again, apportionment is not something that we're asked
02:22 24 to do. It's not something that someone says it would
02:22 25 be a good idea. It's something that we are required to

02:22 1 do, because we can't value more than just the patent at
02:22 2 issue. We're valuing what that specific asset is.

02:22 3 And the approach that Mr. Andrien used is
02:22 4 improper because it incorporates other technologies
02:23 5 outside of the patent at issue based upon his use of a
02:23 6 percentage royalty rate.

02:23 7 And I'm going to take my time and try to
02:23 8 explain this as best I can because I think it's
02:23 9 extremely important.

02:23 10 Q. So do you have an example then you'd like to
02:23 11 walk us through?

02:23 12 A. I do. If you were considering drones and you
02:23 13 had one drone that had a very baseline level of
02:23 14 feature, very few features on it, and it was, say, a
02:23 15 hundred dollar drone. And then you had -- excuse me --
02:23 16 but one feature it did have was hover.

02:23 17 And over here in this hand you had a high-end
02:23 18 drone. This is a \$1,000 drone over here, and it is
02:23 19 chock full of additional features. It's made with
02:23 20 better -- it's made with better equipment. It's got a
02:23 21 bigger engine in it. It's got bigger propellers in it.
02:24 22 It's got better lights on it. It makes a cooler sound.
02:24 23 But it also has hover in it.

02:24 24 What Mr. Andrien has done is he's used a
02:24 25 percentage royalty rate. Let's just assume I say it's

02:24 1 10 percent. He takes 10 percent, multiplies it times
02:24 2 the \$100 drone and says, okay, I've got \$10.

02:24 3 He takes that same 10 percent and multiplies
02:24 4 it times a \$1,000 drone, but what we know when that
02:24 5 happens is 10 percent times \$1,000 is \$100, but that 10
02:24 6 percent is taking some of every other feature and
02:24 7 benefit in that drone.

02:24 8 Because that drone has a bunch of additional
02:24 9 features in it. It's got better propellers. It's got
02:24 10 a bigger motor. It's faster. It does all kinds of
02:24 11 cool stuff that bigger, better drones do. And when you
02:24 12 apply that 10 percent to that drone and get \$100, it's
02:24 13 not only taking a portion of hover, it's taking a
02:25 14 portion of every other dollar associated with that
02:25 15 additional \$90 of other features.

02:25 16 MS. KESTLE: Ryan, if you'll please
02:25 17 display Defendants' Exhibit 521. This will just be a
02:25 18 demonstrative.

02:25 19 And then if we could turn, please --
02:25 20 thank you -- to Page 3.

02:25 21 BY MS. KESTLE:

02:25 22 Q. And, Mr. Schoettelkotte, do you recognize this
02:25 23 document?

02:25 24 A. Yes. This is Schedule 4.2 of my report.

02:25 25 Q. Okay. And what is this document showing?

02:25 1 A. This shows the weighted average price of
02:25 2 different drone series that are offered by DJI.

02:25 3 Q. And how is this relevant to the analysis or
02:25 4 the example that you were just walking us through?

02:25 5 A. If it would be possible to take the product
02:25 6 series labels and blow them up, as well as the total
02:25 7 weighted average prices and blow them up and bring them
02:26 8 together? Thank you.

02:26 9 So I gave you an example a few minutes ago
02:26 10 where if you have different priced drones and you apply
02:26 11 the same percentage royalty rate, you get vastly
02:26 12 different numbers. And that's because the higher
02:26 13 priced drones have more features than the lower priced
02:26 14 drones do.

02:26 15 And so what Mr. Andrien did is he looked at
02:26 16 the various products with each -- within each one of
02:26 17 these series that was alleged to have infringed. And
02:26 18 so if you just take the first two, if you look at the
02:26 19 AGRAS, which is \$5,079 versus the FPV, which is 885,
02:26 20 you might ask yourself, well, I wonder why there's such
02:26 21 a big price difference between those?

02:26 22 And the reason is because those drones offer
02:27 23 such a significantly different stable of features and
02:27 24 benefits. The FPV drone is much more modest. The
02:27 25 AGRAS is used to go ahead and seed farms and drop seeds

02:27 1 and drop fertilizer. It's enormous.

02:27 2 But when Mr. Andrien uses his royalty rate, he
02:27 3 applies the same royalty rate to 885 that he does to
02:27 4 5079. So he's taking a portion of all the other
02:27 5 features and benefits with that percentage, because
02:27 6 that's how percentages work.

02:27 7 There's a way to fix this, though that's an
02:27 8 acceptable methodology that I have used here and peers
02:27 9 of mine have used as well, and it's called looking at
02:27 10 the lowest cost accused product.

02:27 11 MS. KESTLE: Ryan, if you'll please turn
02:27 12 back to the demonstrative.

02:27 13 BY MS. KESTLE:

02:28 14 Q. And have you prepared a slide to share with
02:28 15 the jury about the lowest average selling price that
02:28 16 you were just describing?

02:28 17 A. Yes. I have.

02:28 18 Q. Okay.

02:28 19 A. So what I've sought to do -- and, Ryan, if you
02:28 20 have the ability to highlight with me, I'd really
02:28 21 appreciate that. If we look at the feature and we
02:28 22 highlight "Follow Me."

02:28 23 So I said to myself, I need to find the lowest
02:28 24 priced drone that uses Follow Me, and so I identified
02:28 25 Phantom 3 Standard/3C.

02:28 1 If you highlight that, please.

02:28 2 And that drone sells for \$364. What I know
02:28 3 about this is that that drone has the '909 features in
02:28 4 it. So it's going to have Follow Me in it. It's got
02:28 5 this feature Follow Me in it.

02:28 6 And as a result of that, when we calculate the
02:28 7 royalty, after making all the other adjustments to
02:29 8 costs, we subtract the appropriate costs, we make the
02:29 9 right profit adjustment, and then we use the lowest
02:29 10 priced drone, the royalty rate is [REDACTED] per unit.

02:29 11 Now, it doesn't matter if you add additional
02:29 12 features to the next drone. We've already valued what
02:29 13 Follow Me is worth. When you add another feature, the
02:29 14 royalty rate shouldn't get a part of that other feature
02:29 15 because it's not accused. We're just apportioning down
02:29 16 to the feature at issue.

02:29 17 We did the same thing for ActiveTrack. We
02:29 18 identified Spark. Spark is the -- it's the drone
02:29 19 offered by DJI that uses ActiveTrack and is at the
02:29 20 lowest price. So we know when we make the same
02:29 21 adjustments, when we get to [REDACTED], the value of
02:30 22 ActiveTrack to that product is never going to be higher
02:30 23 than that. Because any price increases that happened
02:30 24 on another drone are not going to be related to that
02:30 25 feature.

02:30 1 And then finally, we did the same thing with
02:30 2 Hover. Here we identified the Tello product. It had
02:30 3 an average selling price of \$86. And we identified a
02:30 4 royalty rate, after making all the same adjustments, of
02:30 5 [REDACTED].

02:30 6 Q. Okay. So then what happens when you apply
02:30 7 that adjusted royalty rate in this case?

02:30 8 A. If we could go to the next slide.

02:30 9 So on the left you see the feature: Follow
02:30 10 Me, ActiveTrack and Hover, and you see the accused
02:30 11 units.

02:30 12 So for Follow Me, there were [REDACTED] accused
02:30 13 units, and I've applied a royalty of [REDACTED] to that
02:30 14 based upon our calculations a moment ago. Total
02:30 15 damages would result in [REDACTED]

02:31 16 For ActiveTrack, we identified
02:31 17 [REDACTED] units. We apply a royalty of [REDACTED] based
02:31 18 upon the way that we calculated it a moment ago, and
02:31 19 that results in [REDACTED], which would yield a total
02:31 20 corrected royalty damages of [REDACTED] for the '909
02:31 21 patent.

02:31 22 And then for Hover, we identified the accused
02:31 23 units of [REDACTED]. Based upon the discussion we had a
02:31 24 moment ago, we identified a royalty rate of [REDACTED]. We
02:31 25 multiply those together, and we get total damages of

02:31 1

[REDACTED]

02:32 2

And so collectively for the '909 and the '752,

02:32 3

when you use the lowest priced drone which factors out

02:32 4

all the other features that are not at issue in this

02:32 5

case, these are figures that I've identified.

02:32 6

Q. And so then what impact, Mr. Schoettelkotte,

02:32 7

does this have adjusting Mr. Andrien's opinion?

02:32 8

A. Taking the next step after making corrections

02:32 9

for the costs that Mr. Andrien didn't deduct, using the

02:32 10

profit split that Textron uses in the ordinary course

02:32 11

of business and correcting for the lowest priced drone

02:32 12

that uses the accused technology, it yields a corrected

02:32 13

damages amount of [REDACTED]

02:32 14

Q. And I believe there's still one more

02:32 15

disagreement to walk through; is that correct?

02:32 16

A. That is correct.

02:32 17

Q. Okay. And will you explain to the jury what

02:32 18

you mean by Mr. Andrien failed to consider cost of

02:32 19

alternative designs?

02:32 20

A. So we spoke about this earlier. I think I

02:33 21

gave the example of you have a choice if you were going

02:33 22

to take the bus or drive to work, park in a parking lot

02:33 23

or pay for a bus ride.

02:33 24

We all face alternatives. And companies,

02:33 25

certainly high-tech companies like DJI, they have

02:33 1 ability to modify software such that they have an
02:33 2 alternative design. And we heard Dr. Nourbakhsh talk
02:33 3 about various of those alternative designs that were
02:33 4 available for both the '909 and '752 patents.

02:33 5 And so as part of my work in this case, I
02:33 6 spoke with Dr. Nourbakhsh about what those alternatives
02:33 7 would look like. I also spoke with personnel at DJI, a
02:33 8 gentleman by the name of Mr. Ai, who explained to me
02:33 9 what the costs would be in order to make these
02:33 10 modifications. I also read his deposition which
02:33 11 identified for me the same.

02:33 12 And I've taken all that information, not only
02:34 13 the understanding that there are alternative designs,
02:34 14 but also how much time it would take and what the costs
02:34 15 to implement that alternative design would be.

02:34 16 And I prepared a slide to share that with the
02:34 17 jury.

02:34 18 Q. Is the cost of alternative designs, in your
02:34 19 understanding, something that Textron also considers
02:34 20 when valuing IP?

02:34 21 A. It is.

02:34 22 Q. Okay. And how do you know that?

02:34 23 A. If we go to the next slide.

02:34 24 So in those workbooks with the worksheets,
02:34 25 we've been talking about -- earlier we'd been talking

02:34 1 about this profit split approach, but they also look at
02:34 2 something called the development cost approach, which
02:34 3 is exactly the same as an alternative design.

02:34 4 And what they say here is intellectual
02:34 5 property value estimated as cost a potential -- or
02:34 6 buyer -- a potential buyer/licensee would incur -- and
02:35 7 this is important -- to independently develop a legal
02:35 8 alternative to existing IP.

02:35 9 And that's what high-technology companies like
02:35 10 DJI do, and Textron recognizes that as well.

02:35 11 Q. And is this something that financial experts
02:35 12 regularly consider when valuing patents?

02:35 13 A. It is. One of the things that I noted in
02:35 14 Mr. Andrien's report, and I would be paraphrasing, he
02:35 15 identified the fact that to the extent that there is an
02:35 16 alternative design that is available, it would be a
02:35 17 significant data point for the parties to consider.
02:35 18 And even moreover, it can be a limiter to what parties
02:35 19 would be willing to pay.

02:35 20 Because if a damages ask was so high,
02:35 21 companies would redesign away from the accused
02:36 22 technology to an alternative design at a reasonable
02:36 23 price at a reasonable time period. And that's, I
02:36 24 think, what Textron is identifying here. And
02:36 25 Mr. Andrien has identified it as well.

02:36 1 Q. Is the cost approach something relevant to
02:36 2 consider in this case?

02:36 3 A. It is, yes.

02:36 4 Q. Okay. And why is that?

02:36 5 A. If we look at what I've learned in this case,
02:36 6 really there's two things. One is we understand that
02:36 7 it would be available at the time of the hypothetical
02:36 8 negotiation.

02:36 9 And what that means is that according to
02:36 10 Dr. Nourbakhsh, all of the information necessary, the
02:36 11 technical understanding, would be available for DJI to
02:36 12 make the proper adjustments to their software in order
02:36 13 to implement an alternative design.

02:36 14 And then secondarily, the costs associated
02:36 15 with implementing that redesign would be consistent
02:37 16 with the costs that programmers would identify as
02:37 17 reasonable. In this case, it was approximately one
02:37 18 month of time for both patents.

02:37 19 And then lastly, I understand from
02:37 20 Dr. Nourbakhsh that these alternatives would be
02:37 21 acceptable in the marketplace for the reasons that he
02:37 22 stated.

02:37 23 Q. And how do you determine the specific costs
02:37 24 for the alternative designs available in this case?

02:37 25 A. So as part of my work, I spoke with Mr. Ai

02:37 1 from DJI, and he explained to me the various costs that
02:37 2 would be relevant in order to make or implement a
02:37 3 redesign. I spoke with Dr. Nourbakhsh, and he
02:37 4 explained to me that it would take a month for each
02:37 5 patent to redesign.

02:37 6 And I used both the salaries of a programmer
02:38 7 and the salaries of a tester, meaning to QC the
02:38 8 process, and their benefits for a fully-loaded cost to
02:38 9 identify what the cost of those alternatives would be.

02:38 10 And in 2015 in April, at the time of the first
02:38 11 hypothetical negotiation, the cost to redesign was
02:38 12 [REDACTED] and the cost of testing was [REDACTED]. The total
02:38 13 cost per the series was [REDACTED].

02:38 14 Similarly in October of 2015, at the second
02:38 15 hypothetical negotiation, the cost to design was
02:38 16 [REDACTED]. The cost of testing was [REDACTED]. And the cost
02:38 17 per series was [REDACTED].

02:38 18 And when I say "the cost of the series," what
02:38 19 I'm getting at is that they would have to make that
02:39 20 same adjustment to more than one series of drone.
02:39 21 Because they have more than one series, they would need
02:39 22 to adjust more than one of those.

02:39 23 But the range of alternatives, [REDACTED] in
02:39 24 April 2015, and [REDACTED] in October 2015.

02:39 25 Q. And so what do you do next after you've

02:39 1 determined that cost per series?

02:39 2 A. If we go to the next slide, please.

02:39 3 So here, as I mentioned, there are various
02:39 4 series. We understand for the '909 patent there would
02:39 5 be one drone series that would need to be modified. So
02:39 6 one drone series times [REDACTED], the cost of this
02:39 7 alternative would be the same, [REDACTED]. That would be
02:39 8 for the '909 patent.

02:39 9 For the '752 patent, there are three series.
02:39 10 For those three series, the cost per series would be
02:39 11 [REDACTED]. When I do that multiplication, I get to [REDACTED]
02:40 12 for a total of [REDACTED].

02:40 13 Now, importantly, as part of my work in this
02:40 14 case, I think I mentioned I had an opportunity to
02:40 15 review Dr. -- or excuse me -- Mr. Andrien's report.

02:40 16 As part of his report, you may recall he
02:40 17 talked about the cost to program in a design-around --
02:40 18 I beg your pardon.

02:40 19 He talked about the cost to program in a
02:40 20 software. So very similar to what I'm calculating up
02:40 21 top, he talked about how costly it would be to make a
02:40 22 software change in a drone series.

02:40 23 And you'll see here in Mr. Andrien's report,
02:40 24 he was somewhat higher than the estimate that was
02:40 25 provided to me. He identified it as [REDACTED] for the

02:40 1 '909 patent, and for the '752, [REDACTED] for a total
02:41 2 of [REDACTED].

02:41 3 And a moment ago I mentioned that he
02:41 4 identified a higher value. You may recall in his
02:41 5 testimony, I believe he was told that it would be
02:41 6 approximately 200 hours of time. And he said, well,
02:41 7 I'll just be conservative, and I'll bump it up to
02:41 8 500 hours.

02:41 9 I think that's the reason it's so much higher
02:41 10 because he doubled a number that, you know, he had
02:41 11 identified originally. Had he not doubled the number,
02:41 12 I think we would've been almost lockstep in what we
02:41 13 were trying to anticipate there, even though I just
02:41 14 used that as a way to check, if you will, the
02:41 15 reasonableness of the alternative amounts that I got
02:41 16 from both DJI and Dr. Nourbakhsh.

02:41 17 Q. And what impact would considering the costs of
02:41 18 these alternative designs have on Mr. Andrien's
02:41 19 analysis?

02:41 20 A. So again, this isn't necessarily a correction
02:41 21 to the 367, but what it shows is, is that if DJI were
02:42 22 to implement a noninfringing alternative, the total
02:42 23 cost of that noninfringing alternative for the series
02:42 24 that we've just discussed would be [REDACTED].

02:42 25 And both myself, Mr. Andrien, as well as

02:42 1 Textron, have identified that the cost of alternatives
02:42 2 is a valid and appropriate way to value technology.

02:42 3 Q. And how does the cost of alternative designs
02:42 4 limit a damage award?

02:42 5 A. Doesn't necessarily limit it. What it does
02:42 6 is, is it provides a data point that parties would look
02:42 7 at to determine what would be reasonable to pay. It's
02:42 8 not a limiter. It just identifies what parties would
02:42 9 be reasonable to pay.

02:42 10 Q. So we've walked through a number of
02:42 11 adjustments that you've made to Mr. Andrien's analysis.

02:42 12 And before we wrap up this afternoon, would
02:42 13 you just briefly summarize those opinions for the jury?

02:42 14 A. So as part of my work here, I've identified
02:43 15 alternative design costs for the '909 and '752 patent
02:43 16 as [REDACTED] for the '909 patent, and [REDACTED] for the '752
02:43 17 patent.

02:43 18 And after making corrections to Mr. Andrien's
02:43 19 calculations, I've identified [REDACTED] for the '909
02:43 20 patent and [REDACTED] for the '752 patent.

02:43 21 Q. And given the adjustments that you've made to
02:43 22 Mr. Andrien's numbers and the failures we've talked
02:43 23 about today, do you think his analysis results in a
02:43 24 reasonable royalty award?

02:43 25 A. I don't. I -- reasonable royalties are

02:43 1 supposed to be -- they're supposed to be reasonable to
02:43 2 both parties, where you're taking into account the
02:43 3 considerations of both the licensee and the licensor.

02:43 4 And as we've talked about today, I believe
02:43 5 that Mr. Andrien either left out certain information,
02:43 6 certainly Textron's own documents, but in addition, he
02:44 7 also failed to properly apportion out many of the
02:44 8 features that are on these higher-priced drones that
02:44 9 otherwise should have been apportioned out to avoid
02:44 10 taking more than just the footprint of the technology
02:44 11 in the marketplace.

02:44 12 Q. And to briefly circle back what we discussed
02:44 13 at the very beginning, if the jury finds that the
02:44 14 patents are invalid or not infringed, what damages are
02:44 15 owed?

02:44 16 A. So again, my opinions and Mr. Andrien's
02:44 17 opinions, they're only relevant if the jury finds
02:44 18 validity and infringement.

02:44 19 I understand that Dr. Nourbakhsh has concluded
02:44 20 that the DJI drones do not infringe either the '909 or
02:44 21 the '752 patents and both the '909 and '752 patents are
02:44 22 invalid.

02:44 23 If that was the case, again, my analysis would
02:44 24 not be necessary. The jury could dismiss my analysis
02:45 25 and Mr. Andrien's analysis because there would be no

02:45 1 damages.

02:45 2 Q. Thank you, Mr. Schoettelkotte.

02:45 3 A. You're welcome.

02:45 4 MS. KESTLE: Your Honor, we pass the
02:45 5 witness.

02:45 6 CROSS-EXAMINATION

02:45 7 BY MR. PANKRATZ:

02:45 8 Q. Good afternoon, Mr. Schoettelkotte.

02:45 9 A. Good afternoon.

10 Q. My name is Kirk Pankratz. I'm counsel for
02:45 11 plaintiff Bell Textron.

02:45 12 (Clarification by Reporter.)

09:42 13 (Sealed proceedings end.)

02:45 14 BY MR. PANKRATZ:

02:45 15 Q. You and I have something in common, which is
02:45 16 tough last names to say and spell.

02:45 17 A. Yeah. I can feel that a little bit.

02:45 18 Q. Now, you are here to address damages issues in
02:45 19 this case, right, sir?

02:45 20 A. Yes. I am.

02:45 21 Q. And as you let the jury know, you're basically
02:45 22 the counterpart to the expert, Mr. Andrien, who
02:45 23 testified in Bell's case, right, sir?

02:46 24 A. I guess I don't consider myself a counterpart.
02:46 25 I consider myself an independent expert who was asked

02:46 1 to come in and value technology, as well as review his
02:46 2 report.

02:46 3 Q. Right. You and Mr. Andrien agree on some
02:46 4 things, fair?

02:46 5 A. Yeah. I'd have to think about it, but yeah.
02:46 6 I think there's probably a few things we do agree on.

02:46 7 Q. Well, you and Mr. Andrien both agree that to
02:46 8 calculate damages in this case, you must look to a
02:46 9 hypothetical negotiation, right?

02:46 10 A. I agree with that.

02:46 11 Q. And both of you agree that in this case there
02:46 12 would be two separate hypothetical negotiations to look
02:46 13 at, right?

02:46 14 A. Yes. That would be in April and October of
02:46 15 2015.

02:46 16 Q. And the April hypothetical negotiation would
02:46 17 be for the '909 patent, right, sir?

02:46 18 A. That's my understanding.

02:46 19 Q. That's the patent that we've heard called the
02:46 20 Follow Me patent?

02:47 21 A. Follow Me or ActiveTrack, I think, is what
02:47 22 it's been called.

02:47 23 Q. And then the other hypothetical negotiation
02:47 24 would take place in what day?

02:47 25 A. October 2015.

02:47 1 Q. And that's for the '752 patent?

02:47 2 A. Yes. That's correct.

02:47 3 Q. The one that we've heard referred to as the
02:47 4 hover hold, right?

02:47 5 A. Yes.

02:47 6 Q. Now, you and Mr. Andrien are all in agreement
02:47 7 on that, right?

02:47 8 A. I believe that's correct.

02:47 9 Q. And you and Mr. Andrien also both agree that,
02:47 10 for damages purposes, you must assume that the patents
02:47 11 are valid and infringed, right?

02:47 12 A. Yes. That's correct.

02:47 13 Q. And at that hypothetical negotiation, DJI
02:47 14 would come to the table assuming valid and infringed
02:47 15 patents, right?

02:47 16 A. Yes.

02:47 17 Q. And then the other assumption from the Bell
02:47 18 perspective is: No matter how distasteful they may
02:47 19 think a deal is in real life, you have to assume that
02:47 20 Bell comes to the table as a willing licensor?

02:48 21 A. That's correct. A willing licensee, a willing
02:48 22 licensor, looking at all documents as we talked about.

02:48 23 Q. Now, damages, I think you and Mr. Andrien have
02:48 24 both explained to the jury, those are effectively if
02:48 25 there is infringement, if the patents are valid, that's

02:48 1 the number that the jury will need to award to
02:48 2 compensate Bell for DJI's use of its patented
02:48 3 technology, right?

02:48 4 A. I missed just the first part of that question.
02:48 5 And if I could ask you to just give it to me again, I
02:48 6 would appreciate it. Thank you.

02:48 7 Q. I think it was kind of long so I'll break it
02:48 8 down.

02:48 9 A. That's -- that's what I meant, and I
02:48 10 apologize. Thank you.

02:48 11 Q. No worries.

02:48 12 At the conclusion of our evidence and after
02:48 13 the Judge charges the jury and they hear closing,
02:48 14 they'll go back to deliberate and they'll receive a
02:48 15 verdict form, right?

02:48 16 A. That is my understanding of the Court's
02:48 17 process, if you will, in general. I wouldn't pretend
02:48 18 to know exactly, but I believe that may be true.

02:49 19 Q. They'll be asked to determine whether they
02:49 20 conclude and agree that DJI is infringing on the '752
02:49 21 and '909, right?

02:49 22 A. That is correct.

02:49 23 Q. And they'll have boxes to check for that?

02:49 24 A. They will have a jury verdict form.

02:49 25 Q. And on that verdict form, they'll also have to

02:49 1 decide whether the patents are valid, right?

02:49 2 A. That's my understanding. Yes.

02:49 3 Q. And if they agree that there is infringement
02:49 4 of valid patents, they'll have a line for each patent
02:49 5 where they need to write in the amount of damages that
02:49 6 are owed to Bell?

02:49 7 A. If that's what the parties to this case agree
02:49 8 to in terms of the form of the verdict form, I haven't
02:49 9 seen it. But in general, that's my understanding, if
02:49 10 the parties agree to some form of a verdict form and
02:49 11 the Judge approves of it.

02:49 12 Q. I actually think the Judge has told us we're
02:49 13 going to have two lines on there.

02:49 14 A. Then I would take your word for it.

02:49 15 Q. So Mr. Andrien has proposed numbers to assist
02:49 16 the jury and said, these are the numbers I have
02:50 17 calculated, and it is my affirmative opinion that these
02:50 18 are the numbers that should go on each of those lines,
02:50 19 right?

02:50 20 A. That's my understanding. Yes.

02:50 21 Q. And what you have just walked us through is
02:50 22 effectively just a critique of Mr. Andrien's numbers,
02:50 23 right?

02:50 24 A. I disagree.

02:50 25 Q. Well, you have not, for any number that we saw

02:50 1 on the screen, offered an affirmative opinion that you
02:50 2 say, based on all of your analysis, this is the correct
02:50 3 number that the jury should write down; isn't that
02:50 4 fair?

02:50 5 A. I would say I have identified two numbers, a
02:50 6 corrected Andrien number, as well as an alternative
02:50 7 design calculation.

02:50 8 Q. You've identified numbers, right?

02:50 9 A. I've identified numbers, calculated and
02:50 10 adjusted for corrections to Mr. Andrien's calculation.
02:50 11 The jury can certainly look at that and the jury can
02:50 12 either agree or disagree with it.

02:51 13 And then, secondarily, I've also identified
02:51 14 the costs of alternative designs, which is an economic
02:51 15 form of measuring the value of a patent. That would be
02:51 16 another figure that the jury can look at and determine,
02:51 17 just like they can look at and determine what
02:51 18 Mr. Andrien has set forth.

02:51 19 Q. All right. We'll get back to that in just a
02:51 20 second to see what it is you are saying is your opinion
02:51 21 versus whether it's just a critique.

02:51 22 But before we do, I noted at the beginning you
02:51 23 talked about reviewing Bell's 10-Ks and other
02:51 24 documents.

02:51 25 Do you recall that?

02:51 1 A. Yes.

02:51 2 Q. And I think you said something along the lines
02:51 3 of I did not see any references to drones as
02:51 4 competition?

02:51 5 A. That's right.

02:51 6 Q. Did you just go into the 10-Ks and do a word
02:51 7 search for "drones"?

02:51 8 A. No. I think it was a bit more thorough than
02:51 9 that. I think I was looking at Textron's 10-K.

02:51 10 Q. Do you know what unmanned -- well, I guess
02:52 11 we'll have to see what the word -- have you ever heard
02:52 12 of unmanned aerial systems?

02:52 13 A. That's -- it's not a phrase that I've heard.
02:52 14 I would say I've heard other phrases. I haven't heard
02:52 15 that one.

02:52 16 Q. You've probably heard "unmanned aerial
02:52 17 vehicles"?

02:52 18 A. That's correct, yes.

02:52 19 Q. And that's a drone?

02:52 20 A. Yes.

02:52 21 Q. Just by a different name?

02:52 22 A. I believe that's true in most senses.

02:52 23 Q. Okay. But you didn't see any reference when
02:52 24 you looked at the 10-Ks to drones?

02:52 25 A. Not in Textron's 10-K.

02:52 1 MR. PANKRATZ: Can we bring up, please,
02:52 2 Plaintiff's Exhibit 377, Mr. Patterson? And Page 4.

02:52 3 And if you could zoom in on the bottom
02:52 4 part of Page 4, the Textron's -- well, that's fine.
02:52 5 This is under -- actually go back out for a second.

02:52 6 We'll see this is under the Textron
02:52 7 systems segment, and now we can blow up that paragraph.
02:52 8 BY MR. PANKRATZ:

02:53 9 Q. And that second paragraph starts: Our
02:53 10 unmanned systems product line includes unmanned
02:53 11 aircraft systems, unmanned surface systems, and goes on
02:53 12 to mention a couple others.

02:53 13 Next sentence: Unmanned aircraft systems
02:53 14 include the Shadow, the U.S. Army's premier tactical
02:53 15 unmanned aircraft system, which has surpassed 1 million
02:53 16 flight hours since its introduction.

02:53 17 And then it goes on to mention another such as
02:53 18 the Aerosonde small unmanned aircraft system.

02:53 19 Do you see that?

02:53 20 A. I see that. I guess I'm not quite following
02:53 21 what you're -- what you're getting at.

02:53 22 Q. The 10-K's talking about drones, isn't it?

02:53 23 A. But that wasn't my testimony. My testimony
02:53 24 was that I did not see any reference as it related to
02:53 25 competition with commercial drones. And I did not see

02:53 1 that in terms of either naming a commercial drone
02:54 2 company like DJI or Autel. And I also didn't see any
02:54 3 naming of drones in terms of, again, commercial drones.

02:54 4 Q. Okay. So you didn't see the word "drones" and
02:54 5 you didn't see the word "DJI" or "Autel," fair?

02:54 6 A. No. I think my testimony was I didn't see any
02:54 7 name of any drone company in either their 10-K, which
02:54 8 is their filing, or a Standard & Poor's filing that's
02:54 9 available to everyone. Every financial person. It's
02:54 10 available to you, all your colleagues. It's available
02:54 11 to your expert.

02:54 12 And we look at those things on a normal course
02:54 13 of business basis to understand who competes with who.
02:54 14 And what I'm really trying to understand is when I do
02:54 15 those analyses, especially with an SEC filing, is the
02:54 16 SEC filings are done for one purpose. They're done to
02:55 17 tell you -- they're done to tell you and anyone else
02:55 18 who has an interest in the financial performance and
02:55 19 the background of a company, what that company is
02:55 20 doing. And leadership signs off on them to their
02:55 21 accuracy.

02:55 22 And the point being, if we want to invest in
02:55 23 Textron, we want to know who their competitors are. We
02:55 24 want to know what their challenges are. And when they
02:55 25 send that to the SEC, the Securities and Exchange

02:55 1 Commission, I was looking to see who they -- who
02:55 2 Textron identified as their competitors.

02:55 3 So I beg your pardon. I see what you've
02:55 4 showed me here, but this is inconsistent with what I
02:55 5 testified to.

02:55 6 MR. PANKRATZ: Objection, nonresponsive.

02:55 7 THE COURT: Sustained.

02:55 8 BY MR. PANKRATZ:

02:55 9 Q. Sir, maybe you didn't hear my question. I
02:55 10 wasn't asking about SEC documents beyond this or your
02:55 11 analysis or a long description of that. I just wanted
02:55 12 to know if you saw the words "DJI" or "Autel" or
02:56 13 "drones" in any of Textron's 10-Ks?

02:56 14 A. Neither there nor in the other documents I
02:56 15 looked at.

02:56 16 Q. Okay. But we do see that drones are discussed
02:56 17 in Textron's 10-Ks, but not using the word "drone,"
02:56 18 right?

02:56 19 A. I think that I see what's here and I'd be
02:56 20 happy to elaborate. I can't really comment any further
02:56 21 other than I disagree with what you're suggesting here
02:56 22 about my analysis.

02:56 23 MR. PANKRATZ: You can take that down,
02:56 24 Mr. Patterson.

02:56 25 BY MR. PANKRATZ:

02:56 1 Q. Now, you and Mr. Andrien also agree on at
02:56 2 least one more thing, I think, which is there are three
02:56 3 main approaches to calculating or determining the
02:56 4 appropriate damages in a patent case, right?

02:56 5 A. I think that's reasonable, yes.

02:56 6 Q. And those are market, cost and income, right?

02:56 7 A. I believe that's correct, yes.

02:56 8 Q. All right. Mr. Andrien did not present a
02:57 9 market approach damages number to the jury, fair?

02:57 10 A. That's correct.

02:57 11 Q. You also did not present a market approach
02:57 12 damages number to the jury, correct?

02:57 13 A. That's correct.

02:57 14 Q. Mr. Andrien did not present a cost approach
02:57 15 damages number to the jury, correct?

02:57 16 A. That's correct.

02:57 17 Q. You also did not present a cost approach
02:57 18 damages number to the jury, right?

02:57 19 A. That's incorrect. I did.

02:57 20 Q. Well, let's dig into that just a little bit
02:57 21 deeper. I know we'll go a lot deeper in noninfringing
02:57 22 alternatives in a minute, but that's what you're
02:57 23 talking about, noninfringing alternatives, right?

02:57 24 A. Yes. Noninfringing alternatives is identified
02:57 25 as the cost approach. You're looking at what would the

02:57 1 cost be to design around a particular patent.

02:57 2 Q. Right. But you were clear to the jury that
02:57 3 the noninfringing alternative costs you were looking
02:57 4 at, those are not a limit, right?

02:57 5 A. They're not a limit. I understand that from a
02:58 6 legal perspective, but I also understand that it is
02:58 7 certainly a very significant data point that I
02:58 8 understand that a jury can determine whether they
02:58 9 believe that is the number in terms of damages that
02:58 10 should be awarded. It doesn't suggest it can't be
02:58 11 higher than that, but that's certainly a data point
02:58 12 that the jury can consider.

02:58 13 Q. You did not tell the jury, unless I missed it,
02:58 14 that you think the cost of noninfringing alternatives
02:58 15 is the number they should write down on the verdict
02:58 16 form, right?

02:58 17 A. I absolutely believe that's a number that is
02:58 18 open to the jury to write down on a jury verdict form.
02:58 19 It is the cost approach. I'm aware of it.
02:58 20 Mr. Andrien's aware of it, and Textron is aware of it.

02:58 21 It is certainly a number that they use. I
02:58 22 understand that it is not a limiter on damages from a
02:58 23 legal standpoint, but from an economic standpoint, as a
02:58 24 valuator, I've used it. Mr. Andrien's used it, and
02:58 25 Textron uses it over 60 times in its documents. So we

02:59 1 know it's prevalent. It's taught in all treatises in
02:59 2 terms of accounting and finance. So it's absolutely
02:59 3 very significant and certainly the jury can take that
02:59 4 into account.

02:59 5 MR. PANKRATZ: Objection, nonresponsive.

02:59 6 THE COURT: Sustained.

02:59 7 BY MR. PANKRATZ:

02:59 8 Q. Sir, I'm going to ask it and I'll try and be
02:59 9 careful in my wording.

02:59 10 Yes or no, did you present to the jury an
02:59 11 opinion to tell them that when they fill in those
02:59 12 blanks, the appropriate correct royalty number is the
02:59 13 amount of the noninfringing alternatives?

02:59 14 A. Absolutely. It was the last slide that I
02:59 15 showed. The jury can consider that number, and they
02:59 16 can select that number. It's not a limiter. They can
02:59 17 choose or select something higher --

02:59 18 THE COURT: Maybe you don't understand
02:59 19 how this works, and I know you do because you've done
02:59 20 this a lot. He's doing his best to ask you a direct
02:59 21 question that gets a yes or no.

02:59 22 I let you go as long as you wanted when
02:59 23 your witness (sic) was putting you on, but now this is
03:00 24 cross, and you need to answer his question.

03:00 25 THE WITNESS: Yes, sir.

03:00 1 THE COURT: Thank you.

03:00 2 THE WITNESS: Thank you.

03:00 3 BY MR. PANKRATZ:

03:00 4 Q. Okay, sir. We'll circle back to noninfringing
03:00 5 alternatives and that -- the cost approach a little
03:00 6 bit, okay?

03:00 7 A. Yes.

03:00 8 Q. The third one -- the third approach that we
03:00 9 talked about is an income approach, fair?

03:00 10 A. Yes.

03:00 11 Q. And you understand that Mr. Andrien did
03:00 12 calculate damages in this case using that third
03:00 13 approach, the income approach, right?

03:00 14 A. Yes.

03:00 15 Q. And the majority of your slides where we saw
03:00 16 those numbers coming down, those were based on income
03:00 17 approach, right?

03:00 18 A. Yes.

03:00 19 Q. Sir, you did not perform an income approach,
03:00 20 did you?

03:00 21 A. No. I've corrected Mr. Andrien's.

03:00 22 Q. You do not believe that an income approach is
03:00 23 an appropriate methodology to use based on the evidence
03:01 24 in this case; isn't that fair?

03:01 25 A. That's correct.

03:01 1 Q. So it's fair to say that all of those income
03:01 2 approach numbers that you put up, you don't think
03:01 3 they're appropriate, right?

03:01 4 A. I think the numbers are appropriate. I don't
03:01 5 think the income approach is appropriate. So, no, I
03:01 6 don't agree with that.

03:01 7 Q. All of those numbers you were putting up are
03:01 8 income-approach calculations, right?

03:01 9 A. Yes.

03:01 10 Q. And again, you do not believe that an income
03:01 11 approach is appropriate to use in this case?

03:01 12 A. That's correct.

03:01 13 Q. Wouldn't you agree, sir, that what you've
03:01 14 presented here is effectively just a critique of
03:01 15 Mr. Andrien's income approach?

03:01 16 A. I think I would use the word "critique" or
03:01 17 "correct." That's correct.

03:01 18 Q. So let's turn to that critique. You chopped
03:01 19 it down several different ways, right?

03:01 20 A. Yes.

03:01 21 Q. Because you think his conclusions are
03:02 22 unreasonable, right?

03:02 23 A. Yes. Among other things.

03:02 24 Q. But, again, you're not suggesting that your
03:02 25 numbers are alternatives to Mr. Andrien's, are you?

03:02 1 A. No. They would certainly be alternatives
03:02 2 because I have corrected them. I disagree.

03:02 3 Q. You're providing alternative calculations of a
03:02 4 royalty using Mr. Andrien's methodology but with
03:02 5 different assumptions?

03:02 6 A. I am -- I would say I disagree with that.

03:02 7 Q. Mr. -- you do recall you had your deposition
03:02 8 taken in this case, right?

03:02 9 A. Yes.

03:02 10 Q. All right. And you were under oath?

03:02 11 A. Yes.

03:02 12 Q. You've been through how many depositions in
03:02 13 your career?

03:02 14 A. Many.

03:02 15 Q. Okay. Dozens?

03:02 16 A. Yeah. Certainly.

03:02 17 Q. More than a hundred?

03:02 18 A. I would say it's somewhere around there.

03:02 19 Q. Okay. So you know how depositions work?

03:03 20 A. Yes. I do.

03:03 21 Q. And you're under oath and swear to tell the
03:03 22 truth?

03:03 23 A. Yes.

03:03 24 Q. And you did, right?

03:03 25 A. Absolutely.

03:03 1 Q. Okay.

03:03 2 MR. PANKRATZ: Mr. Patterson, could we
03:03 3 play the clip of Mr. Schoettelkotte's answer to this
03:03 4 exact question?

03:03 5 It starts at Line 88 -- I'm sorry --
03:03 6 Page 88, Line 14, runs through Page 89, Line 3, about
03:03 7 alternative calculations.

03:03 8 (Video played.)

03:03 9 Q. You provided alternative calculations of a
03:03 10 royalty using Mr. Andrien's methodology but with
03:03 11 different assumptions, right?

03:03 12 A. I wouldn't suggest that it's an alternative.
03:03 13 I would suggest what I'm showing here is the nature of
03:03 14 the unreasonable conclusions that Mr. Andrien has
03:03 15 reached. And simply by adjusting certain inputs into
03:03 16 Mr. Andrien's analysis, it vastly modifies
03:03 17 Mr. Andrien's approach.

03:04 18 I certainly wouldn't set that forth as an
03:04 19 opinion that I'm offering but much more part and parcel
03:04 20 to my rebuttal of Mr. Andrien's approach to his
03:04 21 analysis and the uses of data in -- based upon what
03:04 22 I've seen and what I've reviewed in -- in ways that are
03:04 23 inconsistent with the evidence in the case.

03:04 24 (End video.)

03:04 25 BY MR. PANKRATZ:

03:04 1 Q. That was your testimony, right, sir?

03:04 2 A. Yes.

03:04 3 Q. You certainly wouldn't set that forth as an
03:04 4 opinion that you're offering, right?

03:04 5 A. I heard that. Yes.

03:04 6 Q. One of the ways in this analysis where you
03:04 7 rebutted but were clear this is not your opinion you're
03:04 8 setting forth but you knocked down Andrien's number,
03:04 9 was with respect to costs, right?

03:04 10 A. Yes.

03:04 11 Q. You said you had to match revenue to costs?

03:04 12 A. Yes.

03:04 13 Q. And just as one example, and I think you
03:04 14 mentioned it was leadership or executive, something
03:05 15 along those lines?

03:05 16 A. Yes.

03:05 17 Q. So one of those costs that you think should be
03:05 18 off the table is bonuses to DJI's executives?

03:05 19 A. I'm not sure what you mean by "off the table."

03:05 20 Q. That means that it's money that DJI gets to
03:05 21 keep out from the split, right?

03:05 22 A. To the extent that there is salaries and
03:05 23 bonuses that are paid to management who is running the
03:05 24 company, certainly running the manufacturing of the
03:05 25 drones, I think that's a reasonable cost.

03:05 1 Q. Okay. So if Frank Wang gave himself a
03:05 2 \$100 million bonus, that's off the table, right?

03:05 3 A. I'm not aware of that. That seems like a
03:05 4 hypothetical. I don't know that there's accuracy to
03:05 5 that.

03:05 6 Q. What, because you didn't look deep enough to
03:05 7 know whether he did that?

03:05 8 A. No. I just haven't seen that in the financial
03:05 9 records that I've identified.

03:05 10 Q. Okay. But if he had given himself a
03:05 11 \$100 million bonus, according to you, he gets to keep
03:06 12 that and doesn't have to split any of it with Bell,
03:06 13 right?

03:06 14 A. To the extent that there were bonuses that
03:06 15 were paid and they were included in the financial
03:06 16 information, that would be part of their compensation,
03:06 17 and it would be part of managing the company.

03:06 18 Q. Any arbitrary bonus he gives himself, that's
03:06 19 off the table?

03:06 20 A. I would disagree.

03:06 21 Q. Okay. So, in fact, there is some level of
03:06 22 unreasonableness on executive bonuses and other costs
03:06 23 where you would say, hold on. Those do need to be put
03:06 24 back in?

03:06 25 A. Again, I wouldn't agree with that either. I

03:06 1 would say that I'm not aware what you mean by
03:06 2 "arbitrary bonus."

03:06 3 Q. Okay. But --

03:06 4 A. Most of -- I'm sorry. May I speak?

03:06 5 Q. I was about to ask a question.

03:06 6 A. Oh, beg your pardon. Go ahead, please.

03:06 7 Q. Just so the jury's clear, though, executive
03:06 8 bonuses, those are off the table for the hypothetical
03:06 9 negotiation to be shared between the parties, right?

03:06 10 A. I believe that bonuses that are based on
03:07 11 performance would be incorporated into the analysis.
03:07 12 I'm not aware of arbitrary bonuses. I'm sorry.

03:07 13 Q. The second way you started to cut down or
03:07 14 suggested that Mr. Andrien's numbers were unreasonable
03:07 15 is based on the 25 percent baseline royalty rate that
03:07 16 Bell Textron uses in some instances, right?

03:07 17 A. Yes.

03:07 18 Q. And you reran his numbers and dropped them
03:07 19 down lower by using this different profit split?

03:07 20 A. Yes.

03:07 21 Q. And you call that Textron's baseline profit
03:07 22 split rate, right?

03:07 23 A. Yes.

03:07 24 Q. Okay. Now, that 25 percent baseline number
03:07 25 that you used, I think you said it's something Bell

03:07 1 uses in the standard normal course of business?

03:07 2 A. Yes. It was used in the standard normal
03:08 3 course of business.

03:08 4 Q. But never for a patent license, right, sir?

03:08 5 A. I don't know that in particular.

03:08 6 Q. You don't?

03:08 7 A. No.

03:08 8 Q. Does it surprise you to learn here right now
03:08 9 that Bell has never used the 25 percent baseline profit
03:08 10 split for a patent license?

03:08 11 A. No.

03:08 12 Q. And, in fact, you're not aware of a single
03:08 13 executed Bell Textron patent license that has had a
03:08 14 25 percent value, right?

03:08 15 A. I'm not aware that I've seen that.

03:08 16 Q. You would also agree, sir, that you aren't
03:08 17 using -- even setting aside that Bell doesn't use it
03:08 18 for patents, the way you're using it here is not the
03:08 19 way Bell even uses it for the other situations, right?

03:08 20 A. I'm not sure I understand the question.

03:08 21 Q. Well, you just applied it 25 percent, right?

03:08 22 A. I'm not sure I understand that question
03:08 23 either. Can you tell me what you're asking me?

03:08 24 Q. Did you make any adjustments to that
03:09 25 25 percent?

03:09 1 A. I looked at the Georgia-Pacific factors.

03:09 2 Q. Yes or no, sir?

03:09 3 A. The answer's no. I beg your pardon.

03:09 4 Q. You didn't adjust it up or down, right?

03:09 5 A. It wasn't necessary.

03:09 6 Q. Well, every time Bell uses it in all the
03:09 7 documents you showed, they did a lot of analysis
03:09 8 adjusting it up or down, right?

03:09 9 A. That's not correct.

03:09 10 Q. You showed the jury three different examples,
03:09 11 maybe four, I can't remember. How many?

03:09 12 A. I showed them three, and I identified I
03:09 13 reviewed 61.

03:09 14 Q. Okay. But the three that you showed to the
03:09 15 jury, there were adjustments being made to that
03:09 16 25 percent, right?

03:09 17 A. Yes. I'd be happy to explain, if you'd like.

03:09 18 Q. Well, let's look at one and we'll talk about
03:09 19 it.

03:09 20 A. Sure.

03:09 21 Q. All right.

03:09 22 MR. PANKRATZ: Mr. Patterson, if you
03:09 23 could bring up DTX-199, please.

03:09 24 And go to -- there we go. I think this
03:10 25 is the right -- no. Maybe this is the right page here.

03:10 1 Baseline profit. There we go. That's --
03:10 2 see. You read my mind. Thank you, sir.

03:10 3 BY MR. PANKRATZ:

03:10 4 Q. So we're looking at DTX-199. We've zoomed in
03:10 5 on the analysis here where at the top there is a
03:10 6 baseline profit split rate of 25 percent.

03:10 7 Do you see that, sir?

03:10 8 A. Yes.

03:10 9 Q. And then below it, in this Excel spreadsheet,
03:10 10 there is a series of adjustment factors, right?

03:10 11 A. Yes.

03:10 12 Q. And after those five different adjustment
03:10 13 factors are put in place, there is a risk-adjusted
03:10 14 profit split rate of 45 percent.

03:10 15 Do you see that?

03:10 16 A. Yes.

03:10 17 Q. You did not analyze any adjustment factors for
03:10 18 this particular analysis that you performed, right,
03:11 19 sir?

03:11 20 A. That's incorrect.

03:11 21 Q. They weren't in your report.

03:11 22 A. I think that's incorrect.

03:11 23 Q. Okay. Well, I certainly didn't tell you --
03:11 24 hear you tell the jury that they needed to adjust that
03:11 25 25 percent, did you?

03:11 1 You didn't tell them that?

03:11 2 A. I believe that's also incorrect.

03:11 3 Q. One of the adjustment factors in Textron's own
03:11 4 documents, again, this is not for patent licenses but
03:11 5 for some licensing, one of the adjustment factors is
03:11 6 political risks, right?

03:11 7 A. Yes.

03:11 8 Q. And down there it talks about: Political risk
03:11 9 is risk of program modification, cancellation...

03:11 10 Do you see that?

03:11 11 A. Yes.

03:11 12 Q. You would agree that there are risks to Bell
03:11 13 if it were to make a deal with DJI, right?

03:11 14 A. You'd have to be more explicit. I'm not sure
03:11 15 what you're asking me.

03:11 16 Q. Bell's biggest customer is the United States
03:12 17 government.

03:12 18 Did you hear that?

03:12 19 A. Yes. I did.

03:12 20 Q. And the U.S. government has identified DJI as
03:12 21 a Chinese military company operating in the United
03:12 22 States, correct?

03:12 23 A. I believe I've heard evidence of that. Yes.

03:12 24 Q. It would be risky for Bell to do a deal with a
03:12 25 company that the U.S. government has specifically said

03:12 1 not to do business with, wouldn't it?

03:12 2 A. I can't tell you from a specific standpoint
03:12 3 what that relationship is, but I -- I mean, it could.
03:12 4 Might not be. It could be.

03:12 5 But again, I think there's a lot of -- I mean,
03:12 6 at the same time, DJI disputes it. So I'm trying to
03:12 7 value the technology.

03:12 8 Q. Well, you're the one who suggested that we
03:12 9 should look to this baseline profit split methodology,
03:12 10 right?

03:12 11 A. Yes. Absolutely.

03:12 12 Q. Which is adjusted based on risk according to
03:13 13 Bell's analysis, right?

03:13 14 A. Yes.

03:13 15 Q. And you did not -- well, let me back up and
03:13 16 ask a different question.

03:13 17 You agree, sir, that the fact that it would be
03:13 18 risky for Bell to do business with a company that its
03:13 19 biggest customer has identified as a risk, that alone
03:13 20 would be a reason for Bell to demand a higher royalty
03:13 21 rate, wouldn't it?

03:13 22 A. It could. Again, it all depends on a lot of
03:13 23 different factors. And I think it's unclear to me as
03:13 24 to what actually would happen there.

03:13 25 Q. Okay. But you just used 25 percent, right?

03:13 1 The baseline?

03:13 2 A. That's incorrect.

03:13 3 Q. You're saying that your numbers were not
03:13 4 calculated using the 25 percent number?

03:13 5 A. I used the 25 percent number, and then I
03:13 6 looked at the Georgia-Pacific factors and I outlined
03:13 7 those at the beginning of my presentation. And I said,
03:13 8 collectively, they would have a downward impact.

03:13 9 And so I looked at those Georgia-Pacific
03:14 10 factors and identified, based upon that 25 percent
03:14 11 starting point, the Georgia-Pacific factors would have
03:14 12 a downward impact.

03:14 13 Q. Okay. I'll try and ask it again.

03:14 14 You started at 25 percent, fair?

03:14 15 A. Yes.

03:14 16 Q. You ended at 25 percent, fair?

03:14 17 A. That is correct.

03:14 18 Q. The third way you suggested that Mr. Andrien's
03:14 19 numbers get chopped down is based on the average sales
03:14 20 price of drones, right?

03:14 21 A. Yes.

03:14 22 Q. And you said you intentionally looked for the
03:14 23 cheapest drone you could find with the feature, right?

03:14 24 A. I looked for the lowest cost drone with the
03:14 25 feature.

03:14 1 Q. Lowest cost is another way of saying the
03:14 2 cheapest one?

03:14 3 A. You can call it whatever you like, sir.

03:14 4 Q. Would you agree that the lowest cost drone is
03:14 5 the cheapest one?

03:14 6 A. I don't think any of them are cheap, and I
03:14 7 think cheap has a different connotation. I beg your
03:14 8 pardon.

03:14 9 Q. All right. Is a --

03:14 10 A. I think most people, when they buy these
03:15 11 drones, they're spending quite a bit of money to have
03:15 12 one. So I don't think any of them are cheap.

03:15 13 Q. Is \$86 a cheap drone, in your view?

03:15 14 A. I would say it's the lowest cost drone.

03:15 15 Q. Okay. That is the price of the drone that you
03:15 16 picked as the one to use your -- do your calculations
03:15 17 for the '752 patent though, right?

03:15 18 A. That is correct. That is -- that is correct.

03:15 19 MR. PANKRATZ: Mr. Patterson, could you
03:15 20 bring up -- I believe it's Slide 50 from Mr. Andrien's
03:15 21 slide deck. See if we get the right -- there. Thank
03:15 22 you. Perfect.

23 BY MR. PANKRATZ:

03:15 24 Q. Now, you understand that Mr. Andrien looked at
03:15 25 a set of drones based on surveys, right?

03:15 1 A. Yes.

03:15 2 Q. And this slide was where he was explaining to
03:15 3 the jury that these are the surveyed drones and their
03:16 4 costs, right?

03:16 5 A. Well, I would say it's a price.

03:16 6 Q. All right. We'll call it price.

03:16 7 A. Well, that would be accurate so let's do that.

03:16 8 Q. Okay. None of the drones that were surveyed
03:16 9 cost \$86, right?

03:16 10 A. Not on this page, no.

03:16 11 Q. So when Mr. Andrien was trying to figure out
03:16 12 the value based on surveys of features on drones, he
03:16 13 actually used the drones that were being surveyed,
03:16 14 right?

03:16 15 A. I believe those are the ones that he
03:16 16 handpicked.

03:16 17 Q. Well, you -- I didn't hear you say he
03:16 18 handpicked the wrong ones.

03:16 19 A. Those are the ones that he handpicked for his
03:16 20 analysis. I can't tell you they're the wrong ones.
03:16 21 Those are just the ones that he picked, but there could
03:16 22 have been others.

03:16 23 Q. Do you think maybe he picked those because
03:16 24 those are the drones that DJI picked to survey?

03:17 25 A. It's possible. You'd have to ask Mr. Andrien.

03:17 1 Q. Well, I think I recall him saying that that's
03:17 2 why he chose those because DJI chose to survey them.

03:17 3 A. Okay.

03:17 4 Q. Wouldn't that be a fair reason to choose those
03:17 5 drones to look at?

03:17 6 A. Not necessarily. Not in my opinion.

03:17 7 Q. And I said -- I heard you talking about how
03:17 8 there were more features on higher-priced drones,
03:17 9 right?

03:17 10 A. Yes.

03:17 11 Q. Is that an every time, all the time, there's
03:17 12 always more features if you pay more money?

03:17 13 A. It depends. I would say if you're paying more
03:17 14 money, you might get a larger drone. There could be
03:17 15 more material that's involved. So it doesn't have to
03:17 16 hold every time. But in general, if you buy a
03:17 17 higher-priced drone, it's got more quality to it, I
03:17 18 would think. It's got more features. It's got more
03:17 19 size.

03:17 20 Q. Okay.

03:17 21 MR. PANKRATZ: You can take that one
03:17 22 down.

03:17 23 BY MR. PANKRATZ:

03:18 24 Q. You do agree, though, sir, that the surveys
03:18 25 Mr. Andrien used were for specific drones with a

03:18 1 specific set of features, right?

03:18 2 A. That's what he said.

03:18 3 Q. Did you look at those surveys?

03:18 4 A. Yes.

03:18 5 Q. You would agree that those surveys were for

03:18 6 specific drones and the features on those drones,

03:18 7 right?

03:18 8 A. Yes.

03:18 9 Q. But you would not agree -- let me rephrase it.

03:18 10 You think it's wrong to look at the price of

03:18 11 the drones that were actually surveyed, right?

03:18 12 A. No. I think that -- well, I disagree with

03:18 13 you. I want to make sure that I stick to the Q&A that
03:18 14 you have.

03:18 15 Q. Thanks.

03:18 16 You think that a better data point is to look

03:18 17 at a drone that wasn't surveyed, right?

03:18 18 A. Well, that wasn't my rationale for selecting

03:19 19 that. So I would disagree with that.

03:19 20 Q. Okay. But you did select a drone that wasn't
03:19 21 surveyed, right?

03:19 22 A. But not for that purpose. But yes.

03:19 23 Q. Well, you chose it because it got a real low
03:19 24 number. Isn't that why you chose it?

03:19 25 A. No.

03:19 1 Q. You would agree, though, sir, if you had
03:19 2 calculated a rate using the surveyed drones, you would
03:19 3 have gotten a higher number?

03:19 4 A. I think the answer is yes. And I'd be happy
03:19 5 to explain why.

03:19 6 Q. Well, I think we know why. They're more
03:19 7 expensive, right?

03:19 8 A. If you'd allow me to elaborate, I'd be happy
03:19 9 to explain why.

03:19 10 Q. Well, I may ask you some more questions about
03:19 11 that, but before I do, I'd like to talk to you about
03:19 12 insurance.

03:19 13 We all know what insurance is, right?

03:19 14 A. Yes.

03:19 15 Q. And it's an important thing. It's kind of a
03:19 16 safety net for us, right?

03:20 17 A. It's good to have insurance when you need
03:20 18 insurance.

03:20 19 Q. Yeah. If you wreck your car, you better have
03:20 20 insurance because it's -- the law says so, right?

03:20 21 A. That's one reason, yes.

03:20 22 Q. You would agree that hover hold is a safety
03:20 23 feature, right?

03:20 24 A. Could be.

03:20 25 Q. In fact, multiple folks have sat in that chair

03:20 1 and said exactly that, right?

03:20 2 A. Could be. Yes. I'm not a drone expert, but
03:20 3 yes, it could be.

03:20 4 Q. Helps protect against crashing your drone?

03:20 5 A. I believe I've heard testimony one way or the
03:20 6 other on that. I don't recall specifically.

03:20 7 Q. You would agree, sir, that customers would be
03:20 8 willing to pay more to protect a \$12,000 drone compared
03:20 9 to an \$86 one, right?

03:20 10 A. In general, I would say that's accurate.

03:20 11 Q. Let's talk about those noninfringing
03:20 12 alternatives again.

03:20 13 A. Okay.

03:20 14 Q. All right. We're done with the income
03:21 15 approach and now we're to what you call the cost
03:21 16 approach, right?

03:21 17 A. I think that's correct.

03:21 18 Q. And you testified about what you say it would
03:21 19 have cost for DJI to implement noninfringing
03:21 20 alternatives, right?

03:21 21 A. I've -- well, I would disagree with that.

03:21 22 Q. Okay.

03:21 23 A. And I'd be happy to explain why.

03:21 24 Q. Well, let's see if we can get there. I think
03:21 25 you explained that a noninfringing alternative is

03:21 1 effectively just an alternative that DJI could switch
03:21 2 to or design into that would avoid infringing the
03:21 3 patent; is that fair?

03:21 4 A. No. I believe that's unfair.

03:21 5 Q. That's unfair? Okay. It's not just -- a
03:21 6 noninfringing alternative is not just a design-around?

03:21 7 A. I would disagree with that.

03:21 8 Q. It's something that has to be available and
03:21 9 acceptable to the customers, right?

03:21 10 A. Available and acceptable to customers, which
03:21 11 is something I evaluated.

03:21 12 Q. But you don't know whether it would be
03:22 13 available and acceptable, any of these noninfringing
03:22 14 alternatives, do you?

03:22 15 A. I disagree with that. I'd be happy to
03:22 16 explain.

03:22 17 Q. Well, you relied on DJI to tell you that,
03:22 18 right?

03:22 19 A. I would disagree with that. I'd be happy to
03:22 20 explain.

03:22 21 THE COURT: You don't need to keep saying
03:22 22 you'd be happy to explain. Just answer his questions,
03:22 23 okay?

03:22 24 THE WITNESS: Okay. Certainly.

03:22 25 BY MR. PANKRATZ:

03:22 1 Q. Well, you would agree with me that DJI claims
03:22 2 it had available noninfringing alternatives, right?

03:22 3 A. Yes.

03:22 4 Q. DJI is claiming it could avoid infringement by
03:22 5 switching out the infringing features, right?

03:22 6 A. Well, I guess that's not my -- that's not my
03:22 7 understanding of what they're saying.

03:22 8 Q. Were you here for Dr. Nourbakhsh's testimony?

03:22 9 A. I was, yes.

03:22 10 Q. Where he said that DJI could have just avoided
03:23 11 this whole mess by switching to one of those
03:23 12 alternatives?

03:23 13 A. Yes.

03:23 14 MR. PANKRATZ: For the '909 patent, if we
03:23 15 could bring up -- let's look at this. If we could
03:23 16 bring up DDX -- this is Mr. Schoettelkotte's slides at
03:23 17 Slide 33. You can see it in black and white.

18 BY MR. PANKRATZ:

03:23 19 Q. All right. This is your Slide 33, correct,
03:23 20 sir?

03:23 21 A. Yes.

03:23 22 Q. You said, if we look at that top row, that the
03:23 23 cost for a noninfringing alternative for the '909
03:23 24 patent would have been \$9,297, right?

03:23 25 A. Yes.

03:23 1 Q. Less -- just a little bit shy of 10,000?

03:23 2 A. Yes.

03:23 3 Q. So for just a little bit less than \$10,000, as
03:24 4 Dr. Nourbakhsh said, DJI could have avoided this whole
03:24 5 mess, right?

03:24 6 A. I don't recall what he specifically said, but
03:24 7 I understand that for that number, 9,297, that would
03:24 8 have provided them with a design-around.

03:24 9 Q. And for the '752 patent, because there's three
03:24 10 UAV series, it's three times 9,000-ish, which comes in
03:24 11 at just shy of \$30,000, right?

03:24 12 A. Yes.

03:24 13 Q. And, again, DJI could have avoided the whole
03:24 14 mess on the '752 by just spending \$30,000 to put in
03:24 15 these supposed alternatives, right?

03:24 16 A. It's my under -- well, I don't know if I would
03:24 17 agree with that based on the way you phrased it.

03:24 18 Q. Well, for a total of less than \$40,000,
03:24 19 according to your and Dr. Nourbakhsh's logic, DJI could
03:24 20 have avoided this whole trial, right?

03:24 21 A. I think that they could have designed around,
03:25 22 as we talked about. I haven't really thought about the
03:25 23 trial, but if you're throwing that in, I would say,
03:25 24 yeah. If there was no infringement and there was no
03:25 25 accusation of that, there wouldn't be a trial.

03:25 1 Q. And I think that's probably "the whole mess"
03:25 2 that Dr. Nourbakhsh was referring to?

03:25 3 A. I don't know.

03:25 4 Q. By avoiding this trial, DJI could have avoided
03:25 5 the risk of having to pay \$367 million in damages,
03:25 6 right?

03:25 7 A. I would say if you're -- if you're referring
03:25 8 to the damages position of Mr. Andrien?

03:25 9 Q. Yes.

03:25 10 A. I would say that that's one thing one would
03:25 11 consider if you had -- if you believe that to be an
03:25 12 accurate presentation.

03:25 13 Q. Okay. DJI did not implement any of the
03:26 14 noninfringing alternatives that Dr. Nourbakhsh
03:26 15 discussed into any of these accused products, right?

03:26 16 A. I'm not aware they did.

03:26 17 Q. DJI chose not to do that, right?

03:26 18 A. I can't speak on what they chose to do.

03:26 19 Q. Well, they chose to keep using the accused
03:26 20 technology, right?

03:26 21 A. I can't speak to that.

03:26 22 Q. Isn't that why we're here?

03:26 23 A. Like I said, I can't speak to what they chose
03:26 24 to do.

03:26 25 Q. Sir, your billing rate is -- that your company

03:26 1 bills you out at is \$650 per hour, right?

03:26 2 A. That's correct.

03:26 3 Q. And how many folks have you had helping you on
03:26 4 this case?

03:26 5 A. Two.

03:26 6 Q. Two?

03:26 7 Collectively, over the past few weeks,
03:26 8 roughly, how much is your invoice going to look like?

03:26 9 A. I'm not sure I could tell you. I've worked
03:26 10 quite a bit on this case over the last few weeks, but I
03:26 11 don't have a sense of that.

03:26 12 Q. Probably more than \$40,000, right?

03:26 13 A. I would say it's probably more than that.
03:26 14 Again, I don't know the sense of it.

03:26 15 Q. And over the course of this entire case, do
03:27 16 you have a rough estimate of what the total invoices
03:27 17 from your company that are going to be paid by DJI look
03:27 18 like?

03:27 19 A. I don't. I don't. We've worked very hard on
03:27 20 the project, but I don't have a sense of that.

03:27 21 Q. You heard Dr. Nourbakhsh alone has been paid
03:27 22 somewhere around half a million dollars just for this
03:27 23 case, right?

03:27 24 A. I think I heard something along those lines.
03:27 25 Yes.

03:27 1 Q. At the high end, it was more; maybe it was a
03:27 2 little less?

03:27 3 A. Again, I heard some numbers thrown around. I
03:27 4 don't recall what they were specifically.

03:27 5 Q. Do you think DJI has paid your company more or
03:27 6 less than half a million dollars for all the time y'all
03:27 7 have spent on this?

03:27 8 A. I think it would be less.

03:27 9 Q. It would be less?

03:27 10 So somewhere shy of a million dollars just to
03:27 11 the experts is what DJI has already paid in this case?

03:27 12 A. I don't know what the numbers would be. I
03:27 13 would say that my firm bills for my time. I can't tell
03:27 14 you what it is. It's not something that I track.

03:27 15 Q. And the million dollars in experts doesn't
03:28 16 count how much DJI has paid the lawyers, right?

03:28 17 A. Yeah. I wouldn't have any way of knowing
03:28 18 that. I'm not billed with the lawyers.

03:28 19 Q. All right. Or the risks of a potential
03:28 20 damages verdict, right? That -- if you add that in,
03:28 21 there's even more potential money at stake, right?

03:28 22 A. Well, I think there's risks on both sides
03:28 23 because there's accusations on both sides. And I don't
03:28 24 know what the lawyers think when they evaluate those
03:28 25 things.

03:28 1 Q. But rather than just spending \$40,000 to avoid
03:28 2 this whole mess, DJI decided to spend all that money
03:28 3 instead, right?

03:28 4 A. Well, I would disagree with what I think
03:28 5 you're suggesting.

03:28 6 MR. PANKRATZ: I pass the witness.

03:28 7 MS. KESTLE: No further questions,
03:28 8 Your Honor.

03:28 9 THE COURT: Very good. You may step
03:28 10 down.

03:28 11 THE WITNESS: Thank you, sir.

03:28 12 THE COURT: And if I could have one
03:29 13 counsel up here from each side, please.

03:29 14 (Bench conference.)

03:29 15 THE COURT: About how long is your --

03:29 16 MR. PANKRATZ: I'm going to make you a
03:29 17 happy man and tell you that, based on the state of the
03:29 18 evidence and the record, we don't need a rebuttal case.

03:29 19 THE COURT: Oh, okay. Then we'll take
03:29 20 our afternoon break. We'll take up willfulness. I'll
03:29 21 decide that.

03:29 22 When we finish and decide that, we may or
03:29 23 may not need to fix the charge. Either way, I'm going
03:29 24 to get that resolved. I'll bring them in, I'll charge
03:29 25 them, and we'll be done for the afternoon.

03:29 1 MR. SCHROEDER: Two questions. We can do
03:29 2 the whole 50(a) at that time --

03:29 3 THE COURT: Yes. I'm sorry. I meant to
03:29 4 complete that too.

03:29 5 MR. SCHROEDER: The second issue,
03:29 6 Your Honor, is we had some exhibits that were admitted
03:29 7 during, I think, the public record, and we wanted to
03:29 8 move them onto the sealed record.

03:29 9 Do we do that in front of the presence of
03:30 10 the jury or can --

03:30 11 THE COURT: No. I don't think you
03:30 12 need -- I don't think you need to do that in front of
03:30 13 the jury.

03:30 14 MR. SCHROEDER: Okay. So we can just
03:30 15 sort that out.

03:30 16 THE COURT: Yeah. Just sort that out.

03:30 17 MR. SCHROEDER: Okay. All right.

03:30 18 THE COURT: Anything else?

03:30 19 MR. PANKRATZ: No.

03:30 20 THE COURT: Can I tell them that both
03:30 21 sides have rested?

03:30 22 MR. SCHROEDER: Yes.

23 MR. PANKRATZ: Yes.

03:30 24 THE COURT: Okay. Thank you.

03:30 25 (Bench conference concludes.)

03:30 1 THE COURT: Ladies and gentlemen of the
03:30 2 jury, I know you are anxious to take a break, but I'm
03:30 3 going to hold you one second longer to give you the
03:30 4 good news that we're done with the trial, and so both
03:30 5 sides have rested.

03:30 6 In a few minutes I'm going to have to do
03:30 7 the thing I hate the most, which is read to you for
03:30 8 about an hour the jury charge, and we have a -- we're
03:30 9 going to need just a few minutes to make sure we've got
03:30 10 it right.

03:30 11 You all take your break. As soon as --
03:30 12 it won't take that long, but as soon as we're done with
03:30 13 that, we'll come back in. I will read this to you. It
03:30 14 takes about an hour. When we finish, you'll be going
03:31 15 home. Tomorrow morning at 9:00, you'll come back, the
03:31 16 lawyers will do their closing arguments, and you'll
03:31 17 begin your deliberations. And you'll do those as long
03:31 18 as you need.

03:31 19 So that's the plan for the rest of the
03:31 20 afternoon.

03:31 21 THE BAILIFF: All rise.

03:31 22 (Jury exited the courtroom.)

03:31 23 THE COURT: You may be seated.

03:31 24 Why don't we split up -- why don't we go
03:31 25 first with the plaintiff and any motions you want to

03:31 1 make. And then when I get to defendant, I'd like to
03:31 2 split up all the motions -- the motions you want to
03:31 3 make with everything, other than with respect to
03:31 4 willfulness, and then I'll take up willfulness
03:31 5 separately.

03:31 6 And also, if -- setting aside for a
03:32 7 second the willfulness issue, which is a substantive
03:32 8 issue, does the plaintiff have any objections they'd
03:32 9 like to put on the record with respect to the charge?

03:32 10 MR. HAWES: No, Your Honor. The
03:32 11 plaintiff does not.

03:32 12 THE COURT: And does the defendant have
03:32 13 any objections they'd like to make, setting aside
03:32 14 anything that deals with willfulness?

03:32 15 MR. PALMER: One minute, Your Honor.

03:32 16 THE COURT: Of course.

03:32 17 While y'all are searching, why doesn't
03:32 18 the plaintiff make their motions for directed verdict?

03:32 19 MR. HAWES: Yes, Your Honor. This is
03:32 20 Michael Hawes.

03:32 21 So, Your Honor, we're going to be making
03:32 22 motions with regard to validity and infringement. I'd
03:32 23 like to start with the '752 obviousness case that you
03:32 24 heard this morning.

03:32 25 As we heard the expert admit, this was

03:32 1 not an anticipation argument. The only argument for
03:33 2 invalidity of the '752 asserted claim is under
03:33 3 obviousness.

03:33 4 And with regard to the automatic
03:33 5 engagement requirement, we have no testimony going to
03:33 6 any analysis or evidentiary support for modifying the
03:33 7 reference, the Gold reference, to have that requirement
03:33 8 or testimony and evidence as required to have that
03:33 9 requirement and to analyze whether that had a
03:33 10 reasonable expectation of success at the time.

03:33 11 Once you move from anticipation to
03:33 12 obviousness, those are blackletter law requirements for
03:33 13 an obviousness case, and we just -- we just didn't hear
03:33 14 them this morning.

03:33 15 And so, you know, plaintiff requests that
03:33 16 the Court enter judgment that there's no invalidity
03:33 17 with regard to the '752 patent, Claim 13.

03:33 18 And that's our first one. You want me to
03:33 19 just keep going?

03:33 20 All right.

03:33 21 With regard to invalidity under the '909,
03:34 22 we believe that the -- we should also have a judgment
03:34 23 as a matter of law under Rule 50(a), specifically a
03:34 24 reasonable jury could not adopt DJI's sole invalidity
03:34 25 argument under Frink, which is the only reference that

we had, because the calculating a calculated velocity requirement was not adequately identified with respect to a person of ordinary skill in the art, clear and convincing evidence that a person of ordinary skill in the art would have understood that requirement was disclosed in Frink or that Frink could be modified to include that requirement.

And because of that, we believe judgment as a matter of law should be granted.

Moving to infringement.

With regard to the '909 patent, the testimony of the defendants' expert was based on language that's not in the asserted claims.

So, for example, the expert continued to refer to how movement data was missing. Movement data is not found -- it's not a term in the actual asserted claims. And the law is clear that testimony based on language missing from the claims is not substantial evidence.

He also relied on additional features in the sense of saying that because the accused products controlled position, that that negated infringement. But that's contrary to the law that having an additional feature does not negate infringement.

You -- that doesn't establish an absence.

03:35 1 You could have both controlling the position as well as
03:35 2 the claimed velocity requirements.

03:35 3 And to the extent that the expert merely
03:35 4 crossed out portions of the claim language with regard
03:35 5 to that testimony, that's merely conclusory, which the
03:35 6 Court has found is not substantial evidence.

03:35 7 Finally, Your Honor, on the '752 patent,
03:35 8 Dr. Nourbakhsh first argued that Claim 13's preamble
03:36 9 requires controllers that must be on board; however,
03:36 10 the claim language does not say whether the aircraft
03:36 11 has remote controllers or onboard controllers.

03:36 12 The infringement allegation here is one
03:36 13 of sale. There is no evidence that those controllers
03:36 14 are not provided as part of the sale. And the claim
03:36 15 itself does not require them to be on board or remote.
03:36 16 It allows any controller. And so because on board is
03:36 17 not a term of the claim, that is not substantial
03:36 18 evidence.

03:36 19 Again, Dr. Nourbakhsh showed an
03:36 20 additional feature, that if you push the -- in the
03:36 21 courtroom he had it come up. And if you push away the
03:36 22 drone, he said, well, in that situation, you know, the
03:36 23 drone's trying to come back.

03:36 24 And, you know, the law is clear that, you
03:36 25 know, one method of operation, especially an operation

03:36 1 in a limited scenario that's contrary to the user
03:36 2 instructions, is not substantial evidence of
03:36 3 noninfringement because the fact that the drone might
03:37 4 sometimes operate in a different matter, doesn't show
03:37 5 noninfringement with regard to the common operation.

03:37 6 That's indicated in their documents and
03:37 7 was indicated in the testimony of plaintiff's expert.

03:37 8 So to the extent the, you know, their
03:37 9 expert crossed out -- again, just crossed out language
03:37 10 on the slide, that's conclusory without actual evidence
03:37 11 to back it up.

03:37 12 So for all those reasons, DJI moves for
03:37 13 judgment of infringement with regard to the asserted
03:37 14 claims of the '909 patent and the '752 patent.

03:37 15 THE COURT: Thank you. Those are
03:37 16 overruled.

03:37 17 Now, back to defendant. Are there any
03:37 18 objections you want to make to the jury charge?

03:37 19 MR. SCHROEDER: Yes, Your Honor.

03:37 20 With respect to jury instruction in B.22
03:37 21 regarding the missing source code, the defendants
03:37 22 object to the inclusion of this instruction in its
03:37 23 entirety. The Chinese government precluded defendants
03:37 24 from exporting certain source code, and the entry of
03:37 25 such an instruction is a harsh penalty for defendants

being so precluded.

More importantly, however, as the evidence adduced at trial illustrates, this source code was not necessary for either party to offer their opinions regarding infringement, and the entry of such an instruction is unfairly prejudicial.

With respect to the instruction in B.37, doubts resolved against the infringer, defendants object to the inclusion of this instruction in its entirety.

Textron contends that this instruction is warranted because defendants failed to produce sales information on an entity-by-entity or sales channel basis. Textron never sought this information on an entity-by-entity or sales channel basis during discovery. And any theories for which any such financial information may have been relevant were not introduced by Textron until its opposition to defendants' motion for partial summary judgment.

Defendants have not failed to produce necessary financial information to justify the inclusion of such an instruction.

And as to the verdict form, defendants object to Question No. 1. Magistrate Judge Gilliland rejected Textron's attempts to introduce a

03:39 1 piercing-the-corporate-veil theory and treat defendants
03:39 2 as a single entity, yet that is precisely what
03:39 3 Question 1 of the verdict form does.

03:39 4 Textron presented different theories for
03:39 5 direct infringement based on the DJI entity. Question
03:39 6 No. 1 fails to give the jury the opportunity to
03:39 7 appropriately address each of those distinct theories.

03:39 8 Question No. 1 should ask instead whether
03:39 9 the jury believes Textron has proven, one, that DJI
03:39 10 Europe BV directly infringes; two, that the other named
03:39 11 DJI entities directly infringe or, three, that other
03:39 12 unnamed DJI entities directly infringe.

03:39 13 I believe that's it as to the jury charge
03:39 14 and the verdict form.

03:39 15 THE COURT: Okay.

03:39 16 Now, if you would like to make your
03:39 17 objections to the non-willfulness issues in the case.

03:39 18 Yes, sir.

03:39 19 MR. JAKES: Good afternoon, Your Honor.
03:40 20 Mike Jakes for the defendants.

03:40 21 We move for a judgment under Rule 50(a)
03:40 22 on direct infringement, induced infringement,
03:40 23 invalidity and damages, and I will say willfulness. We
03:40 24 are planning to file a Rule 50(a) motion before the
03:40 25 case is submitted to the jury tomorrow.

03:40 1 Starting with infringement, the Court
03:40 2 should enter judgment that DJI's drones with the
03:40 3 Follow Me or ActiveTrack do not infringe Claims 1, 7,
03:40 4 10 and 11 of the '909 patent either literally or under
03:40 5 the doctrine of equivalents.

03:40 6 A reasonable jury would not have a
03:40 7 legally sufficient basis to find that DJI's drones
03:40 8 receive transmitted reference data communicating a
03:40 9 position and movement of a reference vehicle, either
03:40 10 literally or by equivalency. In the Follow Me mode,
03:40 11 DJI's drones only receive position data, not velocity
03:40 12 data. And in ActiveTrack, the drones do not receive
03:41 13 either position or movement data.

03:41 14 Second, a reasonable jury would not have
03:41 15 a legally sufficient basis to find that DJI's drones
03:41 16 have a selected velocity relative to the reference
03:41 17 vehicle, either literally or by equivalency. DJI's
03:41 18 drones with the Follow Me mode or ActiveTrack do not
03:41 19 allow for selection of any relative velocity, either
03:41 20 literally or equivalently. DJI's drones with Follow Me
03:41 21 mode or ActiveTrack follow an object at a fixed
03:41 22 distance to the object.

03:41 23 In addition, a reasonable jury would not
03:41 24 have a legally sufficient basis to find that DJI's
03:41 25 drones have a control system that calculates relative

03:41 1 velocity. They also do not control the aircraft such
03:41 2 that it attains and maintains the selected relative
03:41 3 velocity. DJI's drones also do not have a selected
03:41 4 relative position or selected relative velocity which
03:41 5 is selected and input prior to flight.

03:42 6 And a reasonable jury would not have a
03:42 7 legally sufficient basis to find that DJI's drones have
03:42 8 a selected relative velocity preprogrammed into the
03:42 9 control system prior to flight.

03:42 10 So for these reasons, the Court should
03:42 11 enter a judgment that DJI's drones do not infringe the
03:42 12 '909 patent, either literally or under the doctrine of
03:42 13 equivalents.

03:42 14 On the '752 patent, the Court should
03:42 15 enter judgment that DJI's drones do not infringe
03:42 16 Claim 13 of this patent, either literally or under the
03:42 17 doctrine of equivalents.

03:42 18 A reasonable jury would not have a
03:42 19 legally sufficient basis to find that DJI's drones have
03:42 20 the claimed longitudinal, lateral, directional and
03:42 21 vertical controllers, either literally or under the
03:42 22 doctrine of equivalents. Under the plain meaning of
03:42 23 the claim, the aircraft does not have the claim
03:42 24 controllers. To the extent they are found anywhere,
03:42 25 they're on the remote.

03:42 1 A reasonable jury would not have a
03:42 2 legally sufficient basis to find that DJI's drones have
03:42 3 the forward speed hold loop or lateral speed hold loop,
03:43 4 either literally or under the doctrine of equivalents.

03:43 5 No reasonable jury could find that
03:43 6 holding a position is the same as holding speed, which
03:43 7 is what is required by the claims.

03:43 8 Also DJI's drones do not automatically
03:43 9 engage either a forward speed hold loop or a lateral
03:43 10 speed hold loop when the corresponding controller is
03:43 11 returned to detent positions and the aircraft
03:43 12 groundspeed is outside a first groundspeed threshold.

03:43 13 In addition, any forward or lateral speed
03:43 14 hold loop does not automatically engage when the
03:43 15 respective controller is released.

03:43 16 A reasonable jury would not have a
03:43 17 legally sufficient basis to find that DJI's drones have
03:43 18 the claimed longitudinal maneuverability or lateral
03:43 19 maneuverability, either literally or under the doctrine
03:43 20 of equivalents. DJI's drones behave the same way for
03:43 21 longitudinal and lateral flight. So no reasonable jury
03:43 22 could find that longitudinal and lateral
03:43 23 maneuverability are controlled by different loops.

03:44 24 So for those reasons, the Court should
03:44 25 enter judgment that DJI's drones don't infringe

1 Claim 13 of the '752 patent.

2 On direct infringement, aside from sales
3 in the U.S. made by DJI Europe, a reasonable jury would
4 not have a legally sufficient basis to find that the
5 other DJI defendants, that's iFlight, Baiwang and SZ
6 DJI, have committed an act of direct infringement in
7 the U.S. These three DJI defendants do not make, use,
8 sell or offer to sell drones in the U.S.

9 Sales in the U.S. are made through other
10 DJI entities that are not parties to this suit. That's
11 DJI Service, DJI Industrial and Saikoron, which are
12 U.S. entities that Textron did not name in this
13 lawsuit.

14 The only evidence shows that defendant,
15 iFlight, sells the drones to the U.S. entities in
16 China, not in the U.S.

17 To the extent that Textron contends that
18 SZ DJI or the other defendants offer to sell drones in
19 the U.S. through the dji.com website, a reasonable jury
20 would not have a legally sufficient basis to find that
21 any of these entities actually made sales in the U.S.
22 for the purpose of calculating and awarding damages.

23 On invalidity, the Court should grant
24 judgment of invalidity that Claims 1, 7, 10 and 11 of
25 the '909 patent would have been anticipated or rendered

03:45 1 obvious by Frink.

03:45 2 A reasonable jury would not have a
03:45 3 legally sufficient basis to find that the claims were
03:45 4 not anticipated or obvious over the Frink reference.
03:45 5 There's no dispute that Frink is prior art to the '909
03:45 6 patent and there was clear and convincing evidence that
03:45 7 was un rebutted that Frink discloses each of the
03:45 8 limitations of the claims and that the claims would
03:45 9 have been obvious.

03:45 10 The Court should also grant judgment of
03:45 11 invalidity of the Claim 13 of the '752 patent would
03:45 12 have been obvious over Gold.

03:45 13 A reasonable jury would not have a
03:45 14 legally sufficient basis to find that the claims were
03:46 15 not obvious over the Gold reference. There's no
03:46 16 dispute that Gold is prior art, and there's clear and
03:46 17 convincing evidence that Claim 13 would have been
03:46 18 obvious from the Gold reference.

03:46 19 And finally, DJI moves for judgment as a
03:46 20 matter of law that Textron is not entitled to any
03:46 21 damages because the patents are not infringed or
03:46 22 invalid.

03:46 23 A reasonable jury would not have a
03:46 24 legally sufficient basis to award a lump sum more than
03:46 25 \$3.6 million. That's 1.5 million for the '909 patent

03:46 1 and 2.1 million for the '752 patent, considering the
03:46 2 cost of the design-arounds and the available
03:46 3 alternatives.

03:46 4 Textron's damages theories are based on
03:46 5 an improper use of the Book of Wisdom and labeling DJI
03:46 6 as a Chinese military company, which was also improper.

03:46 7 In addition, as I mentioned before in
03:46 8 connection with direct infringement, to the extent
03:46 9 Textron contends that SZ DJI or the other defendants
03:47 10 directly infringe by offering to sell drones in the
03:47 11 U.S. through the dji.com website, Textron has not shown
03:47 12 any actual sales by those entities for computing
03:47 13 damages or the amount of those allegedly infringing
03:47 14 sales.

03:47 15 Your Honor, that leaves willfulness and
03:47 16 indirect infringement, which is -- raises a similar
03:47 17 issue, and I'm happy to address willful infringement.

03:47 18 THE COURT: I'm going to ask the
03:47 19 plaintiffs to argue first on willful and put on
03:47 20 whatever evidence they think they have.

03:47 21 MR. JAKES: I don't want to leave out
03:47 22 indirect infringement, because I think that goes with
03:47 23 it.

03:47 24 THE COURT: I understand. And I won't
03:47 25 forget. I just -- I want to hear from plaintiff as to

03:47 1 what evidence they think should go to the jury.

03:47 2 MR. SIEGMUND: May I approach,
3 Your Honor?

4 THE COURT: Uh-huh.

03:48 5 MR. SIEGMUND: Mark Siegmund on behalf of
03:48 6 the plaintiff.

03:48 7 To kind of set the stage, Judge, in order
03:48 8 to prevail on our claim of willfulness, we just have to
03:48 9 show by a preponderance of the evidence that DJI knew
03:48 10 of the patents, which is undisputed in this case, and
03:48 11 engaged in deliberate or intentional infringement.
03:48 12 Like I said, knowledge here is unrebutted. It's not in
03:48 13 dispute. So we're only talking about deliberate
03:48 14 infringement evidence here.

03:48 15 And what I have in all those slides,
03:48 16 Your Honor, is all of DJI's engineers were not provided
03:48 17 with the patent. They didn't take the time to read it,
03:48 18 and all of them confirmed that they would do nothing
03:48 19 differently, despite knowing of Textron's infringement
03:48 20 contentions and what we alleged infringed their
03:48 21 products. And that's pretty much quintessential
03:48 22 evidence of infringement that should be decided by the
03:48 23 jury.

03:48 24 So what I'd like to do, Your Honor, is in
03:48 25 the jury instructions that you are about to give the

03:48 1 jury here, there's four factors underneath the
03:48 2 willfulness instruction that was agreed by the parties.
03:48 3 So I'd like to walk the Court through evidence under
03:48 4 each of those factors.

03:48 5 So starting with Factor 1, which is
03:49 6 whether or not DJI acted consistently with standards of
03:49 7 behavior for its industry.

03:49 8 So if we could go to Slide 1, please,
03:49 9 Mr. Patterson.

03:49 10 And DJI --

03:49 11 THE COURT: I can -- you can just read
03:49 12 the four standards into the record.

03:49 13 MR. SIEGMUND: Okay. Great, Your Honor.
03:49 14 So I read the first factor.

03:49 15 The second and third factors are whether
03:49 16 or not DJI reasonably believed it did not infringe or
03:49 17 that the patent was invalid and whether or not DJI made
03:49 18 a good-faith effort to avoid infringing the '909 and
03:49 19 '752 patents, in other words, design around it.

03:49 20 And so starting with the first factor, we
03:49 21 have evidence of the letter that I --

03:49 22 THE COURT: I'm good. What's the next
03:49 23 factor?

03:49 24 MR. SIEGMUND: Okay. So Factors 2 and 3,
03:49 25 if we go to Slide 5.

03:49 1 And this is where we'll get into the
03:49 2 various engineers and employees of DJI discussing their
03:49 3 knowledge of the patents and how they would not change
03:49 4 anything whatsoever despite knowing of the allegations.

03:49 5 So on Slide 5, you can see what
03:49 6 Mr. Zhang, DJI's engineer, said.

03:50 7 Did you review any of Textron's patents
8 asserted in this case?

03:50 9 He said no. The patents were never
03:50 10 provided to him.

03:50 11 If we could go to Slide 7. This one
03:50 12 provides, I think, a pretty clear example of what I'm
03:50 13 talking about.

03:50 14 This is Mr. --

03:50 15 THE COURT: I'm good. What's the final
03:50 16 one?

03:50 17 MR. SIEGMUND: And the fourth factor,
03:50 18 Your Honor, is whether DJI attempted to cover up any of
03:50 19 their evidence of infringement, which we would argue a
03:50 20 reasonable jury could believe that based on the
03:50 21 evidence that we adduced concerning the source code
03:50 22 dispute that Your Honor said was relevant, Judge
03:50 23 Gilliland said was relevant and our experts said were
03:50 24 relevant.

03:50 25 THE COURT: Well, I don't think that I --

03:50 1 at least from my perspective, that I hold the defendant
03:50 2 liable for that. So -- but I don't know that I need
03:50 3 to.

03:50 4 Okay. Let me hear a response from
03:50 5 defendant.

03:50 6 MR. JAKES: Thank you, Your Honor.

03:50 7 We do move for a judgment as a matter of
03:51 8 law under Rule 50, that there's no willful infringement
03:51 9 or induced infringement.

03:51 10 Judge Gilliland in his report and
03:51 11 recommendation, he granted our motion for a partial
03:51 12 summary judgment, that DJI did not willfully infringe
03:51 13 before the complaint was filed or induce infringement.

03:51 14 And in granting that motion, he said:
03:51 15 There's adequate evidence that the defendants knew of
03:51 16 the patents, but there's insufficient evidence that
03:51 17 defendants knew they infringe.

03:51 18 And that's exactly why willful
03:51 19 infringement after the complaint should also be
03:51 20 granted.

03:51 21 THE COURT: Let me ask you this: Here's
03:51 22 the problem I have, and I had at the last trial.
03:51 23 Mr. Siegmund was on the other side at the other table
03:51 24 in the last one.

03:51 25 At this stage, where it's not a summary

03:51 1 judgment stage, it's a -- in my opinion, it's a, was
03:51 2 there evidence that was put on -- any evidence that was
03:51 3 put on --

03:51 4 MR. JAKES: Yes.

03:51 5 THE COURT: -- disputed or not.

03:51 6 And if there is evidence, then it goes to
03:52 7 the jury, and I can deal with it afterwards.

03:52 8 And so what do -- if that's the standard,
03:52 9 what do I do here?

03:52 10 MR. JAKES: You should grant the judgment
03:52 11 under Rule 50(a) because there is no evidence. A
03:52 12 reasonable jury here couldn't find willful infringement
03:52 13 because the evidence showed there were multiple -- now,
03:52 14 we're talking just after the complaint was filed.
03:52 15 There are multiple reasons why DJI believed its drones
03:52 16 didn't infringe or the claims were invalid, and they
03:52 17 were abundantly presented to the jury.

03:52 18 We have -- Textron introduced PTX-106.
03:52 19 That was the application to export code. And in that
03:52 20 document, DJI warranted its technology did not infringe
03:52 21 any other intellectual property rights.

03:52 22 And so there's no evidence of any
03:52 23 behavior by DJI of copying, no evidence that they knew
03:53 24 their positions were unreasonable.

03:53 25 The only thing that Textron has really

03:53 1 pointed to is statements by the engineers that they
03:53 2 didn't review the patents. But without something that
03:53 3 says that they had an obligation to, after the
03:53 4 complaint was filed, and form a belief as to
03:53 5 infringement or invalidity, then that shouldn't be
03:53 6 enough either.

03:53 7 So we're left really with no evidence on
03:53 8 willful infringement. And I'd say it's the same for
03:53 9 induced infringement, and that's why we move under
03:53 10 Rule 50(a) on induced infringement as well.

03:53 11 Because even though there was knowledge
03:53 12 of the patents, there's insufficient evidence that the
03:53 13 defendants knew that they infringed. They didn't
03:53 14 induce infringement because you have to intend to
03:53 15 encourage another's infringement. And that is a very
03:53 16 similar standard to willful infringement, and there's
03:53 17 no evidence of that intent either.

03:53 18 What we have, instead, is after the
03:53 19 complaint was filed, evidence that shows the claims
03:54 20 were not infringed or are invalid. And there's nothing
03:54 21 to negate that or that there was a reasonable belief by
03:54 22 DJI that those positions were not reasonable.

03:54 23 THE COURT: Let me hear a response from
03:54 24 plaintiff just with regard to the induced infringement.

03:54 25 MR. SIEGMUND: Yes, Your Honor. I

03:54 1 actually have a case right on point, if I could pass it
03:54 2 up to you.

03:54 3 THE COURT: Sure.

03:54 4 MR. SIEGMUND: It'll be under Subpart 3,
03:54 5 Your Honor.

03:54 6 THE COURT: And this is --

03:54 7 MR. SIEGMUND: And it actually goes to
03:54 8 our question on the last trial of whether or not if
03:54 9 you -- even if you aren't inclined to find enhancement,
03:54 10 should the question be submitted to the jury, and the
03:54 11 Federal Circuit said yes. Absolutely. The willfulness
03:54 12 question should be submitted to the jury.

03:54 13 But the facts of this case and the case
03:54 14 that I handed you are strikingly similar. We have in
03:54 15 that case, which for the record is the Ironburg
03:55 16 Inventions Limited versus Valve Corporation case. They
03:55 17 had notice of the patent, a failure to communicate the
03:55 18 patent to designers and the failure to attempt to
03:55 19 design around.

03:55 20 And that's exactly the same evidence that
03:55 21 we have in this case, Your Honor. We have --
03:55 22 undisputed, they had knowledge of the patent. You saw
03:55 23 testimony in the 13 or 14 slides that I gave you that
03:55 24 the design was not -- there's a failure to communicate
03:55 25 the patents to the designers, and they didn't do

03:55 1 anything about it.

03:55 2 And that's the exact same case in -- in
03:55 3 the -- and the Valve case match up almost identically
03:55 4 to here.

03:55 5 And the Federal Circuit said that a
03:55 6 denial of a JMOL in that case was exactly the
03:55 7 appropriate situation, and it should have went to the
03:55 8 jury.

03:55 9 And so our argument would be: It's the
03:55 10 same case. It applies here. This issue should be
03:55 11 decided by the jury.

03:55 12 And then I think Your Honor already knows
03:55 13 this, but a finding of induced infringement does not
03:55 14 compel a finding of willfulness. That's from the SRI
03:55 15 case. Induced infringement is a lower standard than
03:56 16 willfulness.

03:56 17 And we have unrebutted testimony from
03:56 18 Dr. Michalson where he displayed the slide on induced
03:56 19 infringement. I do not even think there was any cross
03:56 20 that was elicited from that whatsoever. So there is
03:56 21 actual evidence in the record.

03:56 22 Unless Your Honor has any questions, I
03:56 23 can -- happy to circle back. Okay.

03:56 24 THE COURT: I'm good.

03:56 25 Any response to the -- this Ironburg

03:56 1 Inventions versus Valve case?

03:56 2 MR. JAKES: Your Honor, we're talking
03:56 3 about post-complaint activity. And certainly in this
03:56 4 case everything the jury has heard, they would be --
03:56 5 they should conclude that DJI's positions were
03:56 6 reasonable.

03:56 7 It's Textron's burden here. And focusing
03:56 8 on the Chinese engineers, there are language issues
03:56 9 here. And the idea that they -- the burden was on them
03:56 10 to somehow come up with noninfringement or
03:56 11 design-arounds after the suit was filed, that's not
03:57 12 what the law requires.

03:57 13 THE COURT: Yeah. Mr. Siegmund, does it
03:57 14 matter -- with regard to the holding in Ironburg
03:57 15 Inventions, does it -- and let me say this also: Was
03:57 16 this case presented to Judge Gilliland?

03:57 17 MR. SIEGMUND: No, Your Honor. That case
03:57 18 is extremely recent. I think it was, my gosh, maybe
03:57 19 two, three weeks --

03:57 20 THE COURT: Two weeks ago.

03:57 21 MR. SIEGMUND: Two weeks ago. So it was
03:57 22 very recently. I don't believe he had that case,
03:57 23 Your Honor.

03:57 24 THE COURT: Yeah.

03:57 25 MR. SIEGMUND: And then also DJI put on

03:57 1 no evidence --

03:57 2 THE COURT: Okay. I'm going to deny the
03:57 3 motion for directed verdict.

03:57 4 So I think that means that the jury
03:57 5 charge is --

03:57 6 MR. MEEK: Your Honor, did we get a
7 ruling on --

8 THE COURT: Directed verdict, and
9 indirect as well.

10 MR. MEEK: (Inaudible.)

11 THE REPORTER: Counsel, I can't hear you.

03:58 12 THE COURT: I thought I said I denied the
03:58 13 ones earlier. If I didn't, all the motions -- let me
03:58 14 do it this way.

03:58 15 Every motion I just heard, I'm denying.

03:58 16 MR. SIEGMUND: Got it.

03:58 17 THE COURT: So the record's clear.

03:58 18 Now, does that mean that the version
03:58 19 subject -- I understand the objections that were made.

03:58 20 Does that mean that the charge is ready
03:58 21 to go?

03:58 22 MR. SIEGMUND: It does, Your Honor. We
03:58 23 were -- agreed on the willfulness instruction.

03:58 24 THE COURT: Okay. Do we have a copy of
03:58 25 the charge?

03:58 1 And we're making copies -- can we go make
03:58 2 copies?

03:58 3 Okay. We will go make copies. As soon
03:58 4 as they're ready, I'll let you know. We'll bring the
03:58 5 jury out, I'll read it to the jury, and we'll be done
03:58 6 for the day.

04:20 7 (Recess taken.)

04:24 8 THE BAILIFF: All rise.

04:24 9 THE COURT: Please remain standing for
04:24 10 the jury.

04:25 11 (Jury entered the courtroom.)

04:25 12 THE COURT: Thank you. You may be
04:25 13 seated.

04:25 14 Ladies and gentlemen, I'm about to read
04:25 15 to you the instructions of the law. You are free to
04:25 16 listen. You're free -- you have to listen, but you are
04:25 17 free to listen and read along, just listen. You're
04:25 18 free to do whatever you want, but whatever's the most
04:25 19 effective way for you to -- it's relatively long. So
04:25 20 whatever's the most efficient and effective way for you
04:25 21 to pay attention to what I'm saying. So...

04:25 22 Members of the jury, it is my duty and
04:25 23 responsibility to instruct you on the law that you must
04:26 24 apply in this case. The law contained in these
04:26 25 instructions is the only law that you may follow.

04:26 1 It is your duty to follow what I instruct
04:26 2 you the law is regardless of any opinion that you might
04:26 3 have as to what the law ought to be.

04:26 4 Each of you is going to have your own
04:26 5 printed copy -- you do have your own printed copy of
04:26 6 these final jury instructions. So there's no need for
04:26 7 you to take notes unless you want to.

04:26 8 If I have given you the impression during
04:26 9 the trial that I favor either party, you must disregard
04:26 10 that impression. If I have given you an impression in
04:26 11 the trial that I have any opinion about anything in
04:26 12 this case, the facts or whatever, you must disregard
04:26 13 that impression.

04:26 14 You are the sole judges of the facts in
04:26 15 this case. Other than these instructions to you on the
04:26 16 law, you must disregard anything I may have said or
04:26 17 done during the trial when you are arriving at your
04:26 18 verdict.

04:26 19 You should consider all the instructions
04:26 20 about the law as a whole and regard each instruction in
04:27 21 light of the others, without isolating a particular
04:27 22 statement or paragraph.

04:27 23 The testimony of the witnesses and other
04:27 24 exhibits introduced by the parties constitute the
04:27 25 evidence. The statements of counsel are not evidence.

04:27 1 They are only argument.

04:27 2 It is important for you to distinguish
04:27 3 between the arguments of counsel and the evidence on
04:27 4 which those arguments rest. What the lawyers say or do
04:27 5 is not evidence.

04:27 6 You may, however, consider their
04:27 7 arguments in light of the evidence that's been admitted
04:27 8 and determine whether the evidence admitted in this
04:27 9 trial supports those arguments.

04:27 10 You must determine the facts from all the
04:27 11 testimony that you have heard and the evidence
04:27 12 submitted. You are the judges of the facts, but in
04:27 13 finding those facts, you must apply the law as I
04:27 14 instruct you.

04:27 15 You are required by law to decide the
04:27 16 case in a fair, impartial and unbiased manner based
04:27 17 entirely on the law and the evidence presented to you
04:27 18 within the courtroom. You may not be influenced by
04:27 19 passion or prejudice or sympathy that you might have
04:28 20 for either party in arriving at your verdict.

04:28 21 As you -- after the remainder of these
04:28 22 instructions, tomorrow morning at 9:00 we will resume
04:28 23 and you will hear closing arguments from the attorneys.

04:28 24 The statements and arguments of the
04:28 25 attorneys, I remind you again, are not evidence. They

04:28 1 are not instructions on the law. They're intended only
04:28 2 to assist you, the jury, in understanding the evidence
04:28 3 and the parties' contentions.

04:28 4 A verdict form has been prepared for you.
04:28 5 You will receive the verdict form in the jury room.
04:28 6 And once you have reached a unanimous decision or
04:28 7 agreement with respect to the verdict, you will have
04:28 8 your foreperson fill in the blanks on the verdict form.
04:28 9 He or she will date it and sign it.

04:28 10 Answer each question in the verdict form
04:28 11 from the facts as you find them to be. Do not decide
04:28 12 who you think should win and then answer the questions
04:28 13 to reach that result. Your answers and your verdict
04:29 14 must be unanimous.

04:29 15 The evidence you are to consider consists
04:29 16 of the testimony of the witnesses here at trial or in
04:29 17 the form of deposition that were presented to you, the
04:29 18 documents and the exhibits that I admitted into
04:29 19 evidence and any facts the lawyers agree to or
04:29 20 stipulated to. You are to apply any fair inference and
04:29 21 reasonable conclusions you draw from the facts and
04:29 22 circumstances that you believe have been proven.
04:29 23 Nothing else is evidence.

04:29 24 As a reminder, here are some examples of
04:29 25 what is not evidence. The fact that Textron

04:29 1 Innovations filed the lawsuit is not evidence that it
04:29 2 is entitled to a judgment in this case. The fact of
04:29 3 making a claim in a lawsuit by itself does not in any
04:29 4 way tend to establish the claim and is not evidence.

04:29 5 Likewise, the fact that DJI has raised
04:29 6 arguments against the claims asserted is not evidence
04:29 7 that it is entitled to a judgment in its favor. The
04:29 8 act of making defensive arguments by themselves do not
04:30 9 in any way tend to establish such arguments have merit.
04:30 10 They are not evidence.

04:30 11 Statements, arguments and questions by
04:30 12 the attorneys are not evidence. Objections to
04:30 13 questions are not evidence. The attorneys that are
04:30 14 seated in front of you objected if they believed that
04:30 15 the documents and evidence that was be -- attempted to
04:30 16 being offered into evidence was improper under the
04:30 17 rules of evidence.

04:30 18 During the trial I may not have let you
04:30 19 hear the answers to some of the questions the lawyers
04:30 20 asked. I may have ruled that you could not see some of
04:30 21 the exhibits the lawyers wanted you to see. Further,
04:30 22 sometimes I may have ordered you to disregard things
04:30 23 that you saw or heard or struck things from the record.
04:30 24 You must follow these rulings and completely ignore all
04:30 25 those things.

04:30 1 Do not speculate about what a witness
04:30 2 might have said or what an exhibit might have shown.
04:30 3 These things are not evidence. You are bound by your
04:30 4 oath to not let them influence your decision in any
04:30 5 way.

04:30 6 Generally speaking, there are two types
04:31 7 of evidence. One is direct such as the testimony of a
04:31 8 witness. The other is indirect or circumstantial.
04:31 9 Circumstantial evidence is evidence that proves from a
04:31 10 fact which you can logically conclude another fact
04:31 11 exists.

04:31 12 As a general rule, the law makes no
04:31 13 distinction between direct and circumstantial evidence.
04:31 14 It simply requires that you determine the facts from
04:31 15 all of the evidence that you have heard in the case,
04:31 16 whether direct or circumstantial or some combination.

04:31 17 As I instructed you before the trial
04:31 18 began, in judging the facts you must consider all the
04:31 19 evidence, whether direct or circumstantial. But that
04:31 20 does not mean that you have to accept or believe all
04:31 21 the evidence. It is entirely up to you to give the
04:31 22 evidence you received in the case whatever you
04:31 23 believe -- whatever weight you individually believe it
04:31 24 deserves. And I emphasize individually believe it
04:31 25 deserves. It'll be up to each of you to decide which

04:31 1 witness to believe or not believe, the weight to give
04:31 2 any testimony you've heard and how much of any witness'
04:32 3 testimony you choose to accept or reject.

04:32 4 You should never be influenced by any
04:32 5 ruling on any -- or any objection that I made. If I
04:32 6 sustained an objection, pretend the question wasn't
04:32 7 asked. If there was an answer given, ignore it. If I
04:32 8 overruled the objection, act like the objection was
04:32 9 never made.

04:32 10 If I gave any limiting instruction at
04:32 11 trial, follow it. Any testimony I told you to exclude
04:32 12 or disregard is not evidence. It may not be
04:32 13 considered.

04:32 14 You must not conduct any independent
04:32 15 research or investigation. You must make your decision
04:32 16 based only on the evidence as I define it here and
04:32 17 nothing more.

04:32 18 Some evidence was admitted for a limited
04:32 19 purpose only. When I instruct you that an item of
04:32 20 evidence has been admitted for a limited purpose, you
04:32 21 must consider it only for that limited purpose and no
04:32 22 other.

04:32 23 Witnesses. You alone determine the
04:32 24 credibility or truthfulness of the witnesses. No
04:32 25 matter what language people speak, they have the right

04:33 1 to have their testimony heard and understood.

04:33 2 You heard a trial in which interpreter --
04:33 3 in which an interpreter translated for one or more of
04:33 4 the participants. The interpreter was required to
04:33 5 remain neutral. The interpreter was required to
04:33 6 translate between English and Chinese accurately and
04:33 7 impartially to the best of his or her skill and
04:33 8 judgment.

04:33 9 It is now up to you to evaluate the
04:33 10 interpreted testimony as you would weigh any other
04:33 11 testimony. You must not give it -- interpreted
04:33 12 testimony any greater weight or lesser weight than you
04:33 13 would if the witness had spoken in English.

04:33 14 Keep in mind a person might speak some
04:33 15 English without speaking it fluently. The person has
04:33 16 the right to the services of an interpreter, therefore,
04:33 17 you should not give greater or lesser weight to a
04:33 18 person's translated testimony based on any conclusion
04:33 19 regarding the extent to which that person speaks
04:33 20 English.

04:33 21 In weighing the testimony of a witness,
04:33 22 you may consider their manner and demeanor on the
04:33 23 witness stand, any feeling or interest they have in the
04:34 24 case, any prejudice or bias about the case and the
04:34 25 consistency or inconsistency of the witness' testimony

04:34 1 considered in the light of all circumstances.

04:34 2 Has the witness been contradicted by
04:34 3 other credible evidence? Has the witness made
04:34 4 statements at other times that are contrary to those
04:34 5 made here on the witness stand? You must give the
04:34 6 testimony of each witness the credibility you believe
04:34 7 it deserves.

04:34 8 Even though a witness may be a party to
04:34 9 the action and, therefore, interested in the outcome,
04:34 10 you may accept the testimony if it is not contradicted
04:34 11 by direct evidence or by any inference that may be
04:34 12 drawn from the evidence if you believe the testimony.

04:34 13 You are not to decide the case by
04:34 14 counting the number of witnesses who have testified for
04:34 15 each of the opposing sides. Witness testimony is
04:34 16 weighed. Witnesses are not counted.

04:34 17 The test is not the relative number of
04:34 18 witnesses but the relative convincing force of the
04:34 19 evidence. The testimony of a single witness is
04:34 20 sufficient to prove any fact even if a greater number
04:34 21 of witnesses testified to the contrary, if after you
04:35 22 have considered all the evidence, you choose to believe
04:35 23 that one single witness.

04:35 24 Certain testimony was presented to you
04:35 25 through a deposition. A deposition is a sworn recorded

04:35 1 answer to questions a witness was asked in advance of
04:35 2 this trial.

04:35 3 Under some circumstances, a witness
04:35 4 cannot be present to testify from the witness stand.
04:35 5 That witness' testimony may be presented under oath in
04:35 6 the form of a deposition. Sometime before this trial,
04:35 7 attorneys representing the parties in the case
04:35 8 questioned those witnesses under oath. There was a
04:35 9 court reporter present who recorded the testimony. The
04:35 10 questions and answers have been show to you.

04:35 11 The deposition testimony is entitled to
04:35 12 the same consideration and must be weighed and
04:35 13 otherwise considered by you in the same way as if the
04:35 14 witness had been present and had testified from the
04:35 15 witness stand in court.

04:35 16 In addition, some of the video recordings
04:35 17 of witnesses you see may be of lower quality because
04:35 18 the witnesses had their depositions taken remotely.
04:35 19 You should not hold the quality of the video or the
04:36 20 location of the witness or any other circumstances
04:36 21 arriving -- arising from travel restrictions against
04:36 22 either party.

04:36 23 You heard from experts in this case.
04:36 24 Expert testimony is testimony from a person who has a
04:36 25 special skill or knowledge in some science or

04:36 1 profession or business. This skill or knowledge is not
04:36 2 common to the average person but was acquired by the
04:36 3 expert through extra special study or experience.

04:36 4 In weighing expert testimony, you may
04:36 5 consider the expert's qualifications, the reasons for
04:36 6 his opinions, the reliability of the information
04:36 7 supporting those opinions, as well as all the factors
04:36 8 I've already previously mentioned for weighing the
04:36 9 testimony of any fact witness. Expert testimony should
04:36 10 receive whatever weight and credit you think is
04:36 11 appropriate given all the other evidence in the case.

04:36 12 You're not required to accept the opinion
04:36 13 of the expert. Rather, you are free to accept it or
04:36 14 reject it just as with all other witnesses.

04:36 15 The fact a person has brought a lawsuit
04:36 16 and is in court seeking damages creates no inference
04:37 17 that that person is entitled to a judgment. Anyone can
04:37 18 make a claim and anyone can file a lawsuit. The act of
04:37 19 making a claim in a lawsuit by itself does not tend to
04:37 20 establish the claim -- that claim and is not evidence.

04:37 21 A stipulation is an agreement. When
04:37 22 there is no dispute about certain facts, the attorneys
04:37 23 may agree or stipulate to those facts. You must accept
04:37 24 or stipulate -- you must accept a stipulated fact as
04:37 25 evidence and treat that fact as having been proven here

04:37 1 in court.

04:37 2 When testimony or an exhibit is admitted
04:37 3 for a limited purpose, you may consider that testimony
04:37 4 or exhibit only for the specific limited purpose for
04:37 5 which it was admitted.

04:37 6 Charts and summaries. Certain charts and
04:37 7 summaries were shown to you solely to help explain or
04:37 8 summarize facts disclosed by other books, records or
04:37 9 other documents in evidence. These charts and
04:37 10 summaries are not evidence or proof of any facts unless
04:37 11 I specifically admitted the chart or summary into
04:37 12 evidence. You must determine the facts exclusively
04:37 13 from the evidence.

04:37 14 Certain exhibits were shown to you such
04:38 15 as PowerPoint presentations, posters, models or
04:38 16 illustrations. They are not themselves evidence. It
04:38 17 is a party's description, picture or model used to
04:38 18 describe something involved in the trial. If your
04:38 19 recollection of the evidence differs from any exhibit
04:38 20 you saw, rely on your recollection.

04:38 21 Do not let bias, prejudice or sympathy
04:38 22 play any part in your deliberations. Whether you're
04:38 23 familiar with one party or the other should not play
04:38 24 any part in your deliberations. A corporation and all
04:38 25 persons are equal before the law. They must be treated

04:38 1 equally in a court of justice.

04:38 2 In any legal action facts must be proven
04:38 3 by a required amount of evidence known as a burden of
04:38 4 proof. This is a civil case. Textron Innovations has
04:38 5 the burden of proving patent infringement, willfulness
04:38 6 and damages by the standard of proof of a preponderance
04:38 7 of the evidence.

04:38 8 A preponderance of the evidence means
04:38 9 evidence that persuades you that a claim is more
04:38 10 probably true than not. Sometimes this is talked about
04:39 11 as being greater -- the greater weight and degree of
04:39 12 credible testimony.

04:39 13 DJI does not have any burden of proof on
04:39 14 the issues of patent infringement, willfulness and
04:39 15 damages.

04:39 16 We'll do a different standard which is
04:39 17 clear and convincing. The defendant, DJI, has the
04:39 18 burden of proving their patent invalidity case by clear
04:39 19 and convincing evidence.

04:39 20 Clear and convincing evidence is evidence
04:39 21 that produces, in your mind, a firm belief or
04:39 22 conviction as to the truth of the matter sought to be
04:39 23 established. It is so clear, direct, weighty and
04:39 24 convincing as to enable you to come to a clear
04:39 25 conviction without hesitancy.

04:39 1 This standard is different from a
04:39 2 preponderance of the evidence standard which applies to
04:39 3 the plaintiff's burden of proving infringement.

04:39 4 These standards of -- are different from
04:39 5 what you've heard about in criminal proceedings where
04:39 6 facts must be proven beyond a reasonable doubt, the
04:39 7 highest level we have.

04:39 8 On a scale of the various standards of
04:40 9 proof, as you move first from the preponderance of the
04:40 10 evidence, where proof need only be sufficient to tip
04:40 11 the scales in favor of a party proving the fact, to the
04:40 12 other end which is beyond a reasonable doubt, where the
04:40 13 fact must be proven to a very high degree of certainty,
04:40 14 you can think of clear and convincing evidence, that
04:40 15 standard, as being between the two ends of the spectrum
04:40 16 or the two different standards.

04:40 17 Textron Innovations does not have any
04:40 18 burden of proof on the issue of patent validity or
04:40 19 prior art.

04:40 20 As I did at the start of the case, I will
04:40 21 now give you a summary of each side's contentions in
04:40 22 the case. I'll provide you with detailed instructions
04:40 23 on what each side must prove to win on each of its
04:40 24 contentions.

04:40 25 Textron Innovations seeks money damages

04:40 1 from DJI for allegedly infringing the '909 and '752
04:40 2 patents by making, importing, using, selling and
04:40 3 offering for sale products that Textron Innovations
04:40 4 argues are covered by Claims 1, 7, 10 and 11 of the
04:41 5 '909 patent and Claim 13 of the '752 patent.

04:41 6 The parties and I have sometimes referred
04:41 7 to these claims collectively as the "asserted claims."
04:41 8 Textron Innovations also argues that DJI has actively
04:41 9 induced infringement of the asserted claims by others.

04:41 10 The features that are alleged to infringe
04:41 11 are as follows: 1, Follow Me; 2, ActiveTrack 1.0, 2.0,
04:41 12 3.0, 4.0 and 5.0; and, 3, hovering.

04:41 13 The defendant denies that it infringed
04:41 14 the asserted claims and argues that, in addition, the
04:41 15 asserted claims against it are invalid.

04:41 16 Your job is to decide whether DJI has
04:41 17 infringed the asserted claims and whether any of those
04:41 18 claims are invalid.

04:41 19 If you decide that any of the asserted
04:41 20 claims has been infringed and also is not invalid, then
04:41 21 you'll need to decide any money damages to be awarded
04:41 22 to Textron Innovations to compensate it for that
04:42 23 infringement.

04:42 24 You will also need to make a finding as
04:42 25 to whether the infringement was willful. If you decide

04:42 1 any infringement was willful, the decision should not
04:42 2 affect any damages award you make. I will do the job
04:42 3 of taking willfulness into account later.

04:42 4 Before you can decide many of the issues
04:42 5 in this case, you'll need to understand the role of
04:42 6 patent claims.

04:42 7 The patent claims are the numbered
04:42 8 sentences at the end of each patent. The claims are
04:42 9 important because it is the words of the claim that
04:42 10 define what a patent covers.

04:42 11 The figures and texts in the rest of the
04:42 12 patent provide a description and are examples of the
04:42 13 invention and provide a context for the claims, but it
04:42 14 is the claims that define the breadth of the patent's
04:42 15 coverage; therefore, what a patent covers depends, in
04:42 16 turn, on what each of its claims covers.

04:42 17 To know what a claim covers, a claim sets
04:42 18 forth in words a set of requirements. Each claim sets
04:42 19 forth its requirements in a single sentence. The
04:42 20 coverage of a patent is assessed claim by claim.

04:43 21 When a product or a method meets all the
04:43 22 requirements of a claim, the claim is said to cover
04:43 23 that product or method and that product or method is
04:43 24 said to fall within the scope of that claim; in other
04:43 25 words, a claim covers a product or method where each of

04:43 1 the claim elements or limitations is present in the
04:43 2 product or method.

04:43 3 You will need to understand what each
04:43 4 claim covers in order to decide whether or not there's
04:43 5 infringement of the claim and decide whether or not the
04:43 6 claim is invalid. The first step is to understand the
04:43 7 meaning of the words used in the patent claim.

04:43 8 The law says that it is my role to define
04:43 9 the terms of the claim; it is your role to apply my
04:43 10 definitions of the terms I've construed to the issues
04:43 11 that you are asked to decide in the case.

04:43 12 Therefore, as I explained to you at the
04:43 13 start of the case, I've determined the meaning of
04:43 14 certain claim terms. I've provided you my definitions
04:43 15 of certain claim terms.

04:43 16 "Selected velocity and/or position,"
04:43 17 plain and ordinary meaning;

04:43 18 "A flight control system for a rotary
04:43 19 aircraft, the rotary aircraft having a longitudinal
04:44 20 controller, a lateral controller, a directional
04:44 21 controller and a vertical controller, the control
04:44 22 system comprising," preamble is limiting with plain and
23 ordinary meaning;

04:44 24 "Detent position," plain and ordinary
25 meaning;

04:44 1 "Forward speed holding" -- "forward speed
04:44 2 hold loop... wherein the forward speed hold loop
04:44 3 automatically engages when the longitudinal controller
04:44 4 is returned to a detent position and the aircraft
04:44 5 groundspeed is outside a first groundspeed threshold,"
04:44 6 plain and ordinary meaning;

04:44 7 "Wherein the lateral speed hold loop
04:44 8 automatically engages when the lateral controller is
04:44 9 returned to a detent position and the aircraft's
04:44 10 groundspeed is outside the first groundspeed threshold;
04:44 11 and wherein lateral maneuverability of the rotary
04:44 12 aircraft is controlled by the lateral speed hold loop
04:44 13 when the lateral controller is out of the detent
04:44 14 position," plain and ordinary meaning;

04:44 15 "Flight in the first groundspeed
04:44 16 threshold," plain and ordinary meaning.

04:44 17 You must accept my definitions to these
04:44 18 words in the claim as being as -- in the claims as
04:45 19 being correct.

04:45 20 It is your job to take the definitions
04:45 21 and apply them to the issues you're deciding, including
04:45 22 the issues of infringement and validity.

04:45 23 The beginning portion, which is known as
04:45 24 the preamble of a claim, often uses the word
04:45 25 "comprising." The word "comprising," when used in the

04:45 1 preamble, means "including but not limited to" or
04:45 2 "containing but not limited to."

04:45 3 When "comprising" is used in the
04:45 4 preamble, if you decide that an accused product
04:45 5 includes all the requirements of that claim, the claim
04:45 6 is infringed. This is true even if the accused product
04:45 7 contains additional elements.

04:45 8 For any words in the claim for which I
04:45 9 have not provided you with the definition, you should
04:45 10 apply the ordinary meaning of those terms in the field
04:45 11 of rotorcraft flight.

04:45 12 You should not take my definition of the
04:45 13 language of the claims as an indication that I have any
04:45 14 view regarding how you decide the issues that you as
04:45 15 the judges are asked to decide, such as infringement or
04:46 16 invalidity. Those are up to you.

04:46 17 This case includes two types of patent
04:46 18 claims; independent and dependent.

04:46 19 An independent claim sets forth all the
04:46 20 requirements that must be met in order to be covered by
04:46 21 the claim. It is not necessary to look at any other
04:46 22 claim to determine what an independent claim covers.

04:46 23 The following asserted claims are
04:46 24 independent: Claims 1 and 7 of the '909 patent;
04:46 25 Claim 13 of the '752 patent.

04:46 1 The remainder of the asserted claims are
04:46 2 dependent claims. A dependent claim does not itself
04:46 3 recite all the requirements of the claim but refers to
04:46 4 another claim for at least some of its requirements.
04:46 5 In this way, the claim depends from another claim.

04:46 6 A dependent claim incorporates all the
04:46 7 requirements of the claim to which it refers. The
04:46 8 dependent claim then adds its own additional
04:46 9 requirements.

04:46 10 To determine what a dependent claim
04:46 11 covers, it is necessary to look at both the dependent
04:46 12 claim and any other claims to which it refers.

04:46 13 A product that meets all the requirements
04:47 14 of both the dependent claim and the claims to which it
04:47 15 refers is covered by the dependent claim.

04:47 16 Allow me to instruct you on how to decide
04:47 17 whether or not the plaintiff has proven that defendant
04:47 18 DJI has infringed either or both of the '909 and '752
04:47 19 patents.

04:47 20 Infringement is assessed on a
04:47 21 claim-by-claim basis, therefore, there may be
04:47 22 infringement as to one claim but not as to another.

04:47 23 In this case, there are two possible ways
04:47 24 a claim could be infringed. The first is called direct
04:47 25 infringement, and the second is active inducement.

04:47 1 Active inducement is referred to as indirect
04:47 2 infringement.

04:47 3 There cannot be indirect infringement
04:47 4 without someone else engaging in direct infringement.
04:47 5 In this case, plaintiff has alleged that defendant has
04:47 6 directly infringed the '909 and '752 patents.

04:47 7 In addition, plaintiff has alleged that
04:47 8 others directly infringed the '909 and '752 patent and
04:48 9 that the defendant is liable for actively inducing that
04:48 10 direct infringement by the others.

04:48 11 To prove infringement, plaintiff must
04:48 12 prove that the requirements for one or more of these
04:48 13 types of infringement are met by a preponderance of the
04:48 14 evidence, that is, that it's more likely than not that
04:48 15 all the requirements of one or more of each of these
04:48 16 types of infringement have been proven.

04:48 17 Allow me to explain now the types of
04:48 18 infringement in detail.

04:48 19 First is literal infringement.

04:48 20 There are two types of literal
04:48 21 infringement: First, literal infringement and, two,
04:48 22 infringement under the doctrine of -- let me start
04:48 23 over. I think I said -- there are two types of direct
04:48 24 infringement. One is literal, and one is infringement
04:48 25 under the doctrine of equivalents.

04:48 1 Unlike indirect infringement, which you
04:48 2 must hear about in a minute, a party can directly
04:48 3 infringe a patent without knowing of the patent or
04:48 4 without knowing that what the party was doing
04:49 5 constitutes patent infringement.

04:49 6 To prove direct infringement by literal
04:49 7 infringement, plaintiff must prove by a preponderance
04:49 8 of the evidence, more likely than not, that the
04:49 9 defendant made, used, sold, offered for sale within or
04:49 10 imported in the United States a product or method that
04:49 11 meets all the requirements of a claim and did so
04:49 12 without the permission of the plaintiff during the time
04:49 13 the '909 patent and '752 patents were in force.

04:49 14 You must compare the product or method
04:49 15 with each and every one of the requirements of a claim
04:49 16 to determine whether all the requirements of that claim
04:49 17 are met.

04:49 18 Direct infringement of a method claim
04:49 19 occurs when all steps of a claimed method are performed
04:49 20 by a single party.

04:49 21 You must determine separately for each
04:49 22 asserted claim whether or not there is infringement.
04:49 23 For dependent claims, if you find that a claim to which
04:49 24 the dependent claim refers is not infringed, there
04:49 25 cannot be infringement of that dependent claim.

04:49 1 On the other hand, if you find that an
04:50 2 independent claim has been infringed, you must still
04:50 3 decide separately whether the product meets the
04:50 4 additional requirements of any claim that depend from
04:50 5 the independent claim to determine whether those
04:50 6 dependent claims have also been infringed.

04:50 7 A dependent claim includes all the
04:50 8 requirements of any of the claims to which it refers
04:50 9 plus additional requirements of its own.

04:50 10 If a company makes, uses, sells, offers
04:50 11 to sell within or imports in the United States a
04:50 12 product that does not literally meet all the elements
04:50 13 of a claim and thus does not literally infringe that
04:50 14 claim, there can still be direct infringement if that
04:50 15 product satisfies that claim element under the doctrine
04:50 16 of equivalents.

04:50 17 Under the doctrine of equivalents -- or
04:50 18 you may hear it as DOE -- a product infringes a claim
04:50 19 if the accused product contains elements that literally
04:50 20 meet or are equivalent to each and every element of the
04:50 21 claim. You may find that an element or step is
04:50 22 equivalent to an element of a claim that is not met
04:50 23 literally if a person having ordinary skill in the
04:51 24 field of rotorcraft flight would have considered the
04:51 25 differences between them to be insubstantial, or would

04:51 1 have found that the structure: (1) performs
04:51 2 substantially the same function and (2) works in
04:51 3 substantially the same way (3) to achieve substantially
04:51 4 the same result as the elements of the claim.

04:51 5 In order to prove infringement by
04:51 6 equivalents plaintiff must prove the equivalency of the
04:51 7 structure to the claim element by a preponderance of
04:51 8 the evidence. Thus, each element of a claim must be
04:51 9 met by the accused product either literally or under
04:51 10 the doctrine of equivalents for you to find
04:51 11 infringement.

04:51 12 Known interchangeability of the claim
04:51 13 elements and the proposed equivalent is a factor that
04:51 14 can support a finding of infringement under the
04:51 15 doctrine of equivalents. In order for the structure to
04:51 16 be considered interchangeable, the claim element must
04:51 17 have been known at the time of the alleged infringement
04:51 18 to a person having ordinary skill in the field of
04:51 19 technology of the patent. Interchangeability at the
04:52 20 present time is not sufficient.

04:52 21 Plaintiff alleges that defendant is
04:52 22 liable for the infringement by actively inducing other
04:52 23 entities to directly infringe the '909 and '752
04:52 24 patents. As with direct infringement, you must
04:52 25 determine whether there's been active inducement on a

04:52 1 claim-by-claim basis.

04:52 2 Defendant is liable for active inducement
04:52 3 of a claim only if Textron Innovations proves by a
04:52 4 preponderance of the evidence:

04:52 5 (1) the acts that are actually carried
04:52 6 out by the other entity directly infringe that claim;

04:52 7 (2) that DJI took action during the time
04:52 8 the '909 and '752 patents were enforced that was
04:52 9 intended to cause and led to the infringing acts by the
04:52 10 other entity; and,

04:52 11 (3) that DJI was aware of the '909 and
04:52 12 '752 patents and knew that the acts, if taken, would
04:52 13 constitute infringement of the corresponding patent, or
04:52 14 that DJI believed there was a high probability that the
04:52 15 acts by the other entity would infringe the '909 and
04:52 16 '752 patents and DJI took deliberate steps to avoid
04:52 17 learning of that infringement.

04:52 18 If you find that DJI was aware of the
04:53 19 patent but believed that it's -- the acts encouraged
04:53 20 did not infringe the patent, they're not liable for
04:53 21 inducement.

04:53 22 In order to establish active inducement
04:53 23 or infringement, it is not sufficient that another
04:53 24 entity or person itself directly infringes the claim.
04:53 25 Nor is it sufficient that defendant was aware of the

04:53 1 acts by the other entity or person that allegedly
04:53 2 constitute that direct infringement.

04:53 3 Rather, in order to find active
04:53 4 inducement or infringement, you must find either that
04:53 5 defendants specifically intended the other entity or
04:53 6 person to infringe the '909 and '752 patents, or the
04:53 7 defendant believed that there was a high probability
04:53 8 that the other entity or person would infringe the '909
04:53 9 and '752 patents but deliberately avoided learning the
04:53 10 infringing nature of the other entity or person's acts.

04:53 11 The mere fact, if true, that defendant
04:53 12 knew or should have known that there's a substantial
04:53 13 risk that the other entity or person's acts would
04:54 14 infringe the '909 or '752 patents would not be
04:54 15 sufficient to support a finding of active inducement
04:54 16 infringement.

04:54 17 Willful infringement. In this case
04:54 18 plaintiff argues that defendant willfully infringed the
04:54 19 '909 and '752 patents. If you have decided that DJI
04:54 20 has infringed, you must go on and address the
04:54 21 additional issue of whether or not it was willful.

04:54 22 Willfulness requires you to determine
04:54 23 whether Textron Innovations proved it is more likely
04:54 24 than not that DJI knew of Textron Innovations' patents
04:54 25 and that the infringement by defendant was intentional.

04:54 1 You may not determine that the infringement was willful
04:54 2 just because the defendant was aware of the '909 and
04:54 3 '752 patents and infringed them. Instead, you must
04:54 4 also find that defendant deliberately infringed the
04:54 5 '909 and '752 patents.

04:54 6 To determine whether the defendant acted
04:55 7 willfully, consider all facts and assess their
04:55 8 knowledge at the time of the challenged conduct. These
04:55 9 are facts that you should consider -- these are some
04:55 10 facts. You can consider whatever you care to.

04:55 11 (1) Whether or not DJI acted consistently
04:55 12 with the standard of behavior for its industry;

04:55 13 (2) Whether or not DJI reasonably
04:55 14 believed it did not infringe or that the patent was
04:55 15 invalid;

04:55 16 (3) Whether or not DJI made a good-faith
04:55 17 effort to avoid infringing the '909 and '752 patents.
04:55 18 For example, whether DJI attempted to design around the
04:55 19 '909 and '752 patents; and,

04:55 20 (4) Whether or not DJI tried to cover up
04:55 21 its infringement.

04:55 22 You may not assume that merely because
04:55 23 the defendant did not obtain a legal opinion about
04:55 24 whether it infringed the '909 and '752 patents, that
04:55 25 the opinion would have been unfavorable. The absence

04:55 1 of legal opinion may not be used by you to find that
04:55 2 defendant acted willfully. Rather, the issue is
04:55 3 whether, considering all the facts, plaintiff has
04:55 4 established the defendants' conduct was willful.

04:56 5 Because DJI could not produce certain
04:56 6 source code related to certain functions and some
04:56 7 function during discovery, you should presume that the
04:56 8 source code would have been favorable to Textron
04:56 9 Innovations and Textron Innovations' infringement
04:56 10 allegations regarding the '752 patent.

04:56 11 I will now instruct you on the rules you
04:56 12 must follow in deciding whether or not DJI has proven
04:56 13 that the asserted claims of the '909 and '752 patents
04:56 14 are invalid. To prove that any claim of a patent is
04:56 15 invalid, DJI must persuade you by clear and convincing
04:56 16 evidence. That is, you must be left with a clear
04:56 17 conviction the claim is invalid.

04:56 18 In order for someone to be entitled to a
04:56 19 patent, the invention must actually be new and not
04:56 20 obvious over what had come before, which is referred to
04:56 21 as the prior art. Prior art is considered in
04:56 22 determining whether the asserted claims are anticipated
04:56 23 or obvious.

04:56 24 Prior art may include items that are
04:56 25 publicly known or that have been used or offered for

04:57 1 sale or references such as publication or patents that
04:57 2 disclose the claimed invention or elements of the
04:57 3 claimed invention.

04:57 4 Defendant contends the following is prior
04:57 5 art to the '909 patent:

04:57 6 United States Patent No. 6,868,314,
04:57 7 referred to as Frink.

04:57 8 Defendant contends the following's prior
04:57 9 art to the '752 patent:

04:57 10 Gold, Phillip J, et al., "The Design and
04:57 11 Pilot Evaluation of the RAH-66 Comanche Selectable
04:57 12 Control Modes."

04:57 13 There is no dispute Gold qualifies as
04:57 14 prior art to the '752 patent.

04:57 15 For purposes of evaluating whether any
04:57 16 dispute or reference or system qualifies as prior art,
04:57 17 the filing dates for the asserted patent are March 25,
04:57 18 2004, and for the '909 -- for the '909 patent, and
04:57 19 July 15, 2011 for the '752 patent.

04:58 20 What is anticipation? In order for
04:58 21 someone to be entitled to a patent, the invention must
04:58 22 actually be new. Defendant contends that the asserted
04:58 23 claims of the '909 and '752 patents are invalid because
04:58 24 the claimed inventions are anticipated. DJI must
04:58 25 convince you of this by clear and convincing evidence

04:58 1 that the evidence highly probably demonstrates that the
04:58 2 claim is -- is or are invalid.

04:58 3 Specifically, defendant contends the
04:58 4 following piece of prior art anticipates the asserted
04:58 5 claims of the '909 patent: Frink. Defendant also
04:58 6 contends that the following piece of prior art
04:58 7 anticipates the asserted claim of the '752 patent:
04:58 8 Gold.

04:58 9 Anticipation must be determined on a
04:58 10 claim-by-claim basis. Defendant must prove by clear
04:58 11 and convincing evidence that all the requirements of a
04:58 12 claim are present in a single piece of prior art. A
04:58 13 prior art system is considered a single piece of art,
04:58 14 even if multiple documents are used to describe that
04:58 15 system, as it is the system itself that is the prior
04:58 16 art.

04:58 17 However, anticipation does not permit an
04:59 18 additional piece of prior art to supply a missing
04:59 19 limitation. To anticipate the invention, the prior art
04:59 20 does not have to use the same words as used in the
04:59 21 claims. But all the requirements of the claim must
04:59 22 have been disclosed and arranged as in the claim.

04:59 23 The claim requirements may either be
04:59 24 disclosed expressly or inherently. That is necessarily
04:59 25 implied such that the person having ordinary skill in

04:59 1 the art in the technology of the invention, looking at
04:59 2 that one reference, could make and use the claimed
04:59 3 invention.

04:59 4 Where defendant is relying on prior art
04:59 5 that was not considered by the PTO during its
04:59 6 examination, you may consider whether the prior art is
04:59 7 significantly different and more relevant than the
04:59 8 prior art that the plaintiff -- that the PTO did
04:59 9 consider. If you decide it is different and more
04:59 10 relevant, you may weigh that prior art more heavily
04:59 11 when considering whether the challenger has carried its
04:59 12 clear and convincing burden of proving invalidity.

04:59 13 If a dependent claim is anticipated by
04:59 14 the prior art, then the claims from which it depends
05:00 15 are necessarily anticipated as well.

05:00 16 Obviousness. Even though an invention
05:00 17 may not have been identically disclosed or described
05:00 18 before it was made by an inventor, in order to be
05:00 19 patentable, the invention must also not have been
05:00 20 obvious to a person of ordinary skill in the field of
05:00 21 rotorcraft flight at the time the invention was made.

05:00 22 Defendant may establish by -- the patent
05:00 23 claim is invalid by proving by clear and convincing
05:00 24 evidence that the claimed invention would have been
05:00 25 obvious to persons having ordinary skill in the art at

05:00 1 the time the invention was made in the field of
05:00 2 rotorcraft flight.

05:00 3 In determining whether a claimed
05:00 4 invention is obvious, you must consider the level of
05:00 5 ordinary skill in the field of rotorcraft flight that
05:00 6 someone would have had at the time the invention was
05:00 7 made, the scope and content of prior art, any
05:00 8 differences between the prior art and the claimed
05:00 9 invention.

05:00 10 Do not use hindsight. Consider only what
05:01 11 was known at the time of the invention.

05:01 12 Keep in mind that the existence of each
05:01 13 and every element of the claimed invention in the prior
05:01 14 art does not necessarily prove obviousness. Most, if
05:01 15 not all, inventions rely on building blocks of prior
05:01 16 art. When considering the different prior art
05:01 17 references, keep in mind that a prior art system is
05:01 18 considered a single piece of art even if multiple
05:01 19 documents are used to describe that system, as it is
05:01 20 the system itself that is the prior art.

05:01 21 In considering whether a claimed
05:01 22 invention is obvious, you should consider whether at
05:01 23 the time of the claimed invention there is a reason
05:01 24 that would have prompted a person having ordinary skill
05:01 25 in the field of the invention to combine the known

elements in the prior art in a way as the claimed invention does, taking into account such factors as:

(1) Whether the claimed invention was merely the predictable result of using prior art elements according to their known functions;

(2) Whether the claimed invention provides an obvious solution to a known problem in the relevant field;

(3) Whether the prior art teaches or suggests the desirability of combining elements claimed in the invention;

(4) Whether the prior art teaches away from combining elements of the claimed invention;

(5) Whether it would have been obvious to try the combinations of elements, such as when there is a design incentive or market pressure to solve a problem and there are a finite number of identified, predictable solutions.

To find it rendered the claimed invention obvious, you must find that the prior art provided a reasonable expectation of success. Obvious to try is not sufficient in unpredictable technologies.

In determining whether the claimed invention is obvious, you should take into account any objective evidence, sometimes called secondary

05:02 1 considerations, that may shed light on whether or not
05:02 2 the claimed invention is obvious, such as:

05:02 3 Whether the claimed invention was
05:02 4 commercially successful as a result of the merits of
05:02 5 the claimed invention (rather than the result of the
05:02 6 design needs or market-pressure advertising or similar
05:02 7 activities);

05:02 8 Whether the claimed invention satisfied a
05:02 9 long-felt need;

05:03 10 Whether others had tried and failed to
05:03 11 make the claimed invention;

05:03 12 Whether others invented the claimed
05:03 13 invention at roughly the same time;

05:03 14 Whether others copied the claimed
05:03 15 invention;

05:03 16 Whether there were damages -- I'm
05:03 17 sorry -- whether there were changes or related
05:03 18 technologies or market needs contemporaneous with the
05:03 19 claimed invention;

05:03 20 Whether the claimed invention achieved
05:03 21 unexpected results;

05:03 22 Whether others in the field praised the
05:03 23 claimed invention;

05:03 24 Whether persons having ordinary skill in
05:03 25 the art of the invention expressed surprise or

disbelief regarding the claimed invention;

Whether others sought or obtained rights to the patent from the patentholder; and,

Whether the inventor proceeded contrary to accepted wisdom in the field.

In determining whether the claimed invention was obvious, consider each claim separately, but understand that if a dependent claim is obvious, then the claims from which it depends are necessarily obvious as well.

What is it meant by level of ordinary skill?

In deciding what the level of ordinary skill in the field of rotorcraft flight, you should consider all the evidence introduced at trial, including but not limited to:

(1) The levels of education and experience of the inventor and other persons actively working in the field;

(2) The types of problems encountered in the field;

(3) Prior art solution to the problems; and,

(4) The rapidity with which innovations are made; and,

(5) The sophistication of the technology.

In considering whether the claimed invention was obvious, you must first determine the scope and content of the prior art.

Scope and content of the prior art for deciding whether the invention was obvious includes at least prior art in the same field as the claimed invention.

It also includes prior art from different fields that a person of ordinary skill in the art would have considered when trying to solve the problem addressed by the invention.

Where a defendant is relying on prior art that was not considered by the PTO during examination, you may consider whether the prior art is significantly different and more relevant than the prior art the PTO did consider.

If you decide it is different and more relevant, you may weigh that prior art more heavily when considering whether the challenger has carried its clear-and-convincing burden of proving invalidity.

If you find that DJI infringed any claim -- any valid claim of the '909 patent and the '752 patent, you must then consider what amount of damages to award to the plaintiff.

05:05 1 I'm going to instruct you now about the
05:05 2 measure of damages. Let me say this: By instructing
05:05 3 on damages, I'm not suggesting which party should win
05:05 4 the case on any issue.

05:05 5 If you find that the defendant has not
05:05 6 infringed any valid claim of the patent, then plaintiff
05:05 7 is not entitled to any damages.

05:05 8 The damages you award must be adequate to
05:05 9 compensate Textron Innovations for the infringement if
05:05 10 they prove it. They are not meant to punish the
05:05 11 defendant.

05:05 12 Your damages award, if you reach that
05:05 13 issue, should not -- should put the plaintiff in
05:05 14 approximately the same financial position you believe
05:05 15 it would have been in had the infringement not
05:05 16 occurred.

05:05 17 Plaintiff has the burden to establish the
05:05 18 amount of damages by a preponderance of the evidence.
05:05 19 You should award only those damages that plaintiff
05:06 20 establishes are more likely than not that it has
05:06 21 suffered.

05:06 22 While plaintiff is not required to prove
05:06 23 the amount of damages with mathematical precision, it
05:06 24 must prove them with reasonable certainty. You may not
05:06 25 award damages that are speculative, only possible or

05:06 1 that are based on guesswork.

05:06 2 In this case, plaintiff seeks a
05:06 3 reasonable royalty. Reasonable royalty is defined as
05:06 4 the amount of money that a plaintiff and defendant
05:06 5 would have agreed upon as a fee for use of the
05:06 6 invention at the time just prior to when infringement
05:06 7 began.

05:06 8 You must be careful to ensure that the
05:06 9 award is no more and no less than the value of the
05:06 10 patented invention. I will give you more detailed
05:06 11 instructions with respect to damages shortly. Know,
05:06 12 however, that plaintiff is entitled to recover no less
05:06 13 than a reasonable royalty.

05:06 14 A royalty is a payment made to a
05:06 15 patentholder in exchange for the right to make, use,
05:06 16 sell or import the claimed invention.

05:06 17 A reasonable royalty is the amount of
05:07 18 royalty payment that a patentholder and the alleged
05:07 19 infringer would have agreed to in a hypothetical
05:07 20 negotiation taking place at a time prior to when the
05:07 21 infringement first began.

05:07 22 In considering this hypothetical
05:07 23 negotiation, you should focus on what the expectation
05:07 24 of the patentholder and the alleged infringer would
05:07 25 have been had they entered into an agreement at that

time and had they acted reasonably in the negotiations.

In determining this, you must assume that both parties believed the patent was valid and infringed and that both parties were willing to enter into the agreement.

The reasonable royalty you determine must be a royalty that would have resulted from the hypothetical negotiation and not simply a royalty that one or the other party would have preferred.

Evidence of the things that happened after the infringement first began can be considered in evaluating the reasonable royalty only to the extent that the evidence aids in assessing what royalty would have resulted from the hypothetical negotiation just prior to the first infringement.

In determining the reasonable royalty, you should consider all the facts known and available to the parties. Some of the factors that you can consider in your determination are:

The value that the claimed invention contributes to the accused product;

The value that factors other than the claimed invention contribute to the accused product.

The so-called Georgia-Pacific factors, which can be considered in appropriate cases to inform

05:08 1 the hypothetical negotiation, including the following:

05:08 2 Royalties received by the patentee for
05:08 3 the licensing of the patents-in-suit, proving or
05:08 4 tending to prove an established royalty;

05:08 5 The rates paid by the licensee for the
05:08 6 use of other patents comparable to the patent in this
7 case;

05:08 8 The nature and scope of the license, as
05:08 9 exclusive or nonexclusive, or as restricted or
05:08 10 non-restricted in terms of territory or with respect to
05:08 11 whom the manufactured product may be sold;

05:08 12 The licensor's established policy and
05:08 13 marketing program to maintain his or her patent
05:08 14 monopoly by not licensing others to use the invention
05:08 15 or by granting licenses under special conditions
05:08 16 designed to preserve that monopoly;

05:08 17 The commercial relationship between the
05:09 18 licensor and licensee, such as whether they are
05:09 19 competitors in the same territory in the same line of
05:09 20 business, or whether they are inventor and promoter;

05:09 21 The effect of selling the patented
05:09 22 specialty in promoting sales of other products of the
05:09 23 licensee, the existing value of the invention to the
05:09 24 licensor as a generator of sales of the non-patented
05:09 25 items, and the extent of such derivative or conveyed

05:09 1 sales;

05:09 2 The duration of the patent and the term
05:09 3 of the license;

05:09 4 The established profitability of the
05:09 5 product made under the patents and its commercial
05:09 6 success and its current popularity;

05:09 7 The utility and advantages of the
05:09 8 patented property over the old modes or devices, if
05:09 9 any, that have been used for working out similar
05:09 10 results;

05:09 11 The nature of the patented invention, the
05:09 12 character of the commercial embodiment of it as owned
05:09 13 and produced by the licensor, and the benefits to those
05:09 14 who have used the invention;

05:09 15 The extent to which the inventor has made
05:09 16 use of the invention and any evidence probative of the
05:09 17 value of that use;

05:09 18 The portion of the profit or of the
05:10 19 selling price that may be customary in the particular
05:10 20 business or in comparable businesses to allow for the
05:10 21 use of the invention or analogous inventions;

05:10 22 The portion of the realizable profit that
05:10 23 should be credited to the invention as distinguishable
05:10 24 from non-patented elements, the manufacturing process,
05:10 25 business risks or significant features or improvements

05:10 1 added by the infringer;

05:10 2 The opinion and testimony of qualified
05:10 3 experts;

05:10 4 The amount that a licensor, such as the
05:10 5 patentee, and the licensee, such as the infringer,
05:10 6 would have agreed upon at the time the infringement
05:10 7 began if both had been reasonably and voluntarily
05:10 8 trying to reach an agreement; that is, the amount which
05:10 9 a prudent licensee -- who desired, as a business
05:10 10 proposition, to obtain a license to manufacture and
05:10 11 sell a particular article embodying the patented
05:10 12 invention -- would have been willing to pay as a
05:10 13 royalty and yet be able to make a reasonable profit and
05:10 14 which amount would have been acceptable by the prudent
05:10 15 patentee who was willing to grant a license.

05:10 16 No one factor is dispositive, and you can
05:11 17 and should consider the evidence that has been
05:11 18 presented to you in this case on each of these factors.

05:11 19 You may also consider any other factors
05:11 20 which in your mind would have increased or decreased
05:11 21 the royalty the alleged infringer would have been
05:11 22 willing to pay and the patentholder would have been
05:11 23 willing to accept, acting as normally prudent business
05:11 24 people.

05:11 25 In determining the amount of damages, you

1 must determine when the damages began. If damages are
2 awarded for direct infringement, the party -- the
3 parties agree damages will begin on July 19th, 2015,
4 for defendants' alleged direct infringement of the '909
5 patent and October 20th, 2015, for defendants' alleged
6 direct infringement of the '752 patent.

7 If damages are awarded for induced
8 infringement, the date damages began would depend on
9 defendants' knowledge, which the parties dispute.

10 Damages for induced infringement would
11 begin no sooner than July 19th, 2021, when plaintiff
12 filed its complaint in this case.

13 In determining a reasonable royalty, you
14 may also can consider evidence concerning the
15 availability and cost of acceptable noninfringing
16 substitutes to the patented invention. An acceptable
17 substitute must be a product that does not infringe the
18 patent.

19 Damages are not based on hindsight
20 evaluation of what happened, but on what the parties to
21 the hypothetical license negotiations would have agreed
22 upon. Nonetheless, evidence relevant to the
23 negotiation is not necessarily limited to facts that
24 occurred on or before the date of the hypothetical
25 negotiation.

05:12 1 You may also consider information the
05:12 2 parties would have foreseen or estimated during the
05:12 3 hypothetical negotiation, which may under certain
05:12 4 circumstances include evidence of usage after
05:12 5 infringement started, license agreements entered into
05:12 6 by the parties shortly after the day of the
05:12 7 hypothetical negotiation and profits earned by the
05:12 8 infringer and noninfringing alternatives.

05:12 9 A reasonable royalty can be paid either
05:13 10 in the form of a one-time, lump-sum payment or as a
05:13 11 running royalty. Either method is designed to
05:13 12 compensate the patentholder based on the infringer's
05:13 13 use of the patented technology. It is up to you, based
05:13 14 on the evidence, to decide what type of royalty, if
05:13 15 any, is appropriate in this case.

05:13 16 Reasonable royalty awards may take the
05:13 17 form of a lump-sum payment. A lump-sum payment is
05:13 18 equal to the amount that defendant would have paid at
05:13 19 the time of the hypothetical negotiation for a license
05:13 20 covering all allegedly infringing defendant sales, both
05:13 21 past and future. When a lump sum is paid, the
05:13 22 infringer pays a single price for a license covering
05:13 23 both past and future infringing sales.

05:13 24 Reasonable royalty awards may also take
05:13 25 the form of a running royalty based on the revenue from

or the volume of sales of the licensed product. A running royalty can be calculated, for example, by multiplying a royalty base by a royalty rate or by multiplying the number of infringing products or product units sold by a royalty amount per unit.

The amount that you find as damages must be based on the value attributable to the patented invention, as distinct from the unpatented features of the accused products or other factors such as marketing or advertising or defendants' size or market position.

A royalty compensating the patentholder for damages must reflect the value attributable to the infringing features of the product, no more.

The process of severing the value of the allegedly infringing features from the value of all other features is called apportionment. When the accused infringing product have both patented and unpatented features, your award must be apportioned so that it is based only on the value of the patented features and no more.

Any confusion or difficulties caused by a defendants' record should be held against defendant, not plaintiff. The burden of proving damages is always still on plaintiff, however.

Okay. So we will do closing arguments

05:15 1 tomorrow morning at 9:00. After we finish the closing
05:15 2 arguments, it will then be your duty to deliberate and
05:15 3 consult with each other in an effort to reach a
05:15 4 verdict.

05:15 5 Let me make clear to you. Each of you
05:15 6 must decide the case for yourselves after an impartial
05:15 7 consideration of the evidence with each other. During
05:15 8 your deliberations do not hesitate to re-examine your
05:15 9 own opinions and change your mind if you are convinced
05:15 10 that your own opinion is wrong. But never give up your
05:15 11 own honest beliefs because others think differently or
05:15 12 just to finish the case. Remember you are the judges
05:15 13 of the facts.

05:15 14 You've been allowed to take notes during
05:15 15 the trial. If you took notes during the trial, they
05:15 16 are only aids to memory. If your memory differs from
05:15 17 your notes, rely on your memory, not your notes. The
05:15 18 notes are not evidence.

05:15 19 If you did not take notes, rely on your
05:15 20 independent recollection of the evidence and don't be
05:15 21 unduly influenced by others' notes. Notes are never
05:16 22 entitled to greater weight than the recollection or
05:16 23 impression of each of you about the testimony.

05:16 24 Okay. Let me tell you -- I'll tell
05:16 25 briefly and then I'll remind you tomorrow afterwards.

05:16 1 What will happen after the lawyers do their closing
05:16 2 arguments is you will go retire back to the jury room.
05:16 3 We will get to you virtually immediately the exhibits
05:16 4 because they're electronic. And you'll have a way of
05:16 5 looking at them back there. So you'll have them
05:16 6 virtually instantaneously.

05:16 7 Remember also, during the course of the
05:16 8 trial there were demonstrative exhibits. They were not
05:16 9 admitted. You won't have them tomorrow. So
05:16 10 occasionally I have jurors asking we saw something, we
05:16 11 can't find it. It's probably because it was a
05:16 12 demonstrative exhibit.

05:16 13 You will have all of the exhibits that
05:16 14 were admitted into evidence. And as you heard me read,
05:16 15 that is what you base your decision on.

05:17 16 The first thing that you'll do tomorrow
05:17 17 is take -- we have note paper back there. You will
05:17 18 select a foreperson. That foreperson will fill out a
05:17 19 note. And what I learned in the last trial I need to
05:17 20 make clear, we won't know that you've done that unless
05:17 21 you give us the note.

05:17 22 So it's not enough for you all just to
05:17 23 select a jury foreperson and not tell us. You have to
05:17 24 select a jury foreperson and hand the note to the
05:17 25 person outside the door which allows us to know that we

05:17 1 have a foreperson.

05:17 2 And so once you have a foreperson
05:17 3 selected, and you have -- and the exhibits are already
05:17 4 back there, at that point you begin to deliberate. And
05:17 5 from then on you will -- it's whatever amount of time
05:17 6 you need to deliberate.

05:17 7 If during the course of your
05:17 8 deliberations you -- one of you says, I have a question
05:17 9 that we need to ask the Court, the foreperson will
05:17 10 take, again, a piece of note paper. They'll write the
05:17 11 question out, hand it to hopefully this handsome
05:18 12 gentleman or one of our other CSOs. And they'll bring
05:18 13 it to me.

05:18 14 I will let the lawyers know what the
05:18 15 question is. I will write out a response. And I will
05:18 16 give it back to you -- him, and he will give it back to
05:18 17 the foreperson. And y'all will have the response.

05:18 18 And that's usually very quickly done.
05:18 19 And so you, generally speaking, won't have to wait very
05:18 20 long to get an answer to your questions.

05:18 21 The bottom line is, for tonight I'm not
05:18 22 sure how you get out of here. But it looks like we
05:18 23 might need an ark. But hopefully you all will be safe
05:18 24 tonight as you leave.

05:18 25 We'll start tomorrow morning -- if you'll

05:18 1 be here by about 8:45, we'll do the closing arguments
05:18 2 at 9:00. Each side will have about a half hour. So
05:18 3 you will begin deliberating shortly after 10 o'clock.

05:18 4 I think that's all that we have for you.
05:18 5 Again, please be careful out there. And we will --
05:19 6 remember, I know it's tempting, we're near the end.
05:19 7 You can't talk about the case yet because you haven't
05:19 8 heard the closing arguments.

05:19 9 Please don't do any independent
05:19 10 investigation. And please don't post anything about
05:19 11 the case.

05:19 12 But tomorrow you'll begin your
05:19 13 deliberations. And then you'll get to talk to each
05:19 14 other as much as you want to about what you heard this
05:19 15 week.

05:19 16 Have a good evening.

05:19 17 THE BAILIFF: All rise.

05:19 18 (Jury exited the courtroom.)

05:19 19 THE COURT: Gentlemen and ladies,
05:19 20 anything we need to take up?

05:19 21 MR. MEEK: Nothing from plaintiff, Your
05:19 22 Honor.

05:19 23 THE COURT: All right. I'm pretty sure I
05:19 24 told you this, but -- you may be seated -- you don't
05:19 25 need to exchange slides tonight. Just come and give

05:20 1 your closing argument.

05:20 2 And I'll be here as usual, although there
05:20 3 shouldn't be anything to take up because, you know, you
05:20 4 aren't going to have anything from the other side to
05:20 5 complain about. So if you're here by 9:00, we should
05:20 6 get started then.

05:20 7 And is there anything that we do need to
05:20 8 take up? I don't think so.

05:20 9 MR. SCHROEDER: The only thing, Your
05:20 10 Honor, is once we send the jury back there was going to
05:20 11 be a snippet where we were going to do an additional
05:20 12 testimony on that inequitable conduct issue. That's
05:20 13 it.

05:20 14 THE COURT: Sure. That's right. I don't
05:20 15 need to hear from your expert on inequitable conduct.
05:20 16 And so --

05:20 17 MR. SCHROEDER: We took the Court's
05:20 18 guidance and decided not to bring him.

05:20 19 THE COURT: Okay. And so that -- this
05:20 20 will go -- it will go pretty quickly. I can assure
05:20 21 you.

05:20 22 So unlike the jury, who I know that each
05:20 23 of you feels like if something's worth being asked
05:20 24 once, it's worth being asked nine times, the problem I
05:20 25 had as a lawyer, I don't really need to hear it nine

05:21 1 times. We'll move through it pretty quickly, I promise
05:21 2 you.

05:21 3 So we'll see you tomorrow.

05:21 4 THE BAILIFF: All rise.

05:21 5 (Hearing adjourned.)

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 UNITED STATES DISTRICT COURT)
2 WESTERN DISTRICT OF TEXAS)
3
4

5 I, Kristie M. Davis, Official Court
6 Reporter for the United States District Court, Western
7 District of Texas, do certify that the foregoing is a
8 correct transcript from the record of proceedings in
9 the above-entitled matter.

10 I certify that the transcript fees and
11 format comply with those prescribed by the Court and
12 Judicial Conference of the United States.

13 Certified to by me this 30th day of April
14 2023.

15
16 /s/ Kristie M. Davis
KRISTIE M. DAVIS
Official Court Reporter
800 Franklin Avenue
Waco, Texas 76701
18 (254) 340-6114
kmdaviscsr@yahoo.com
19
20
21
22
23
24
25

05:21